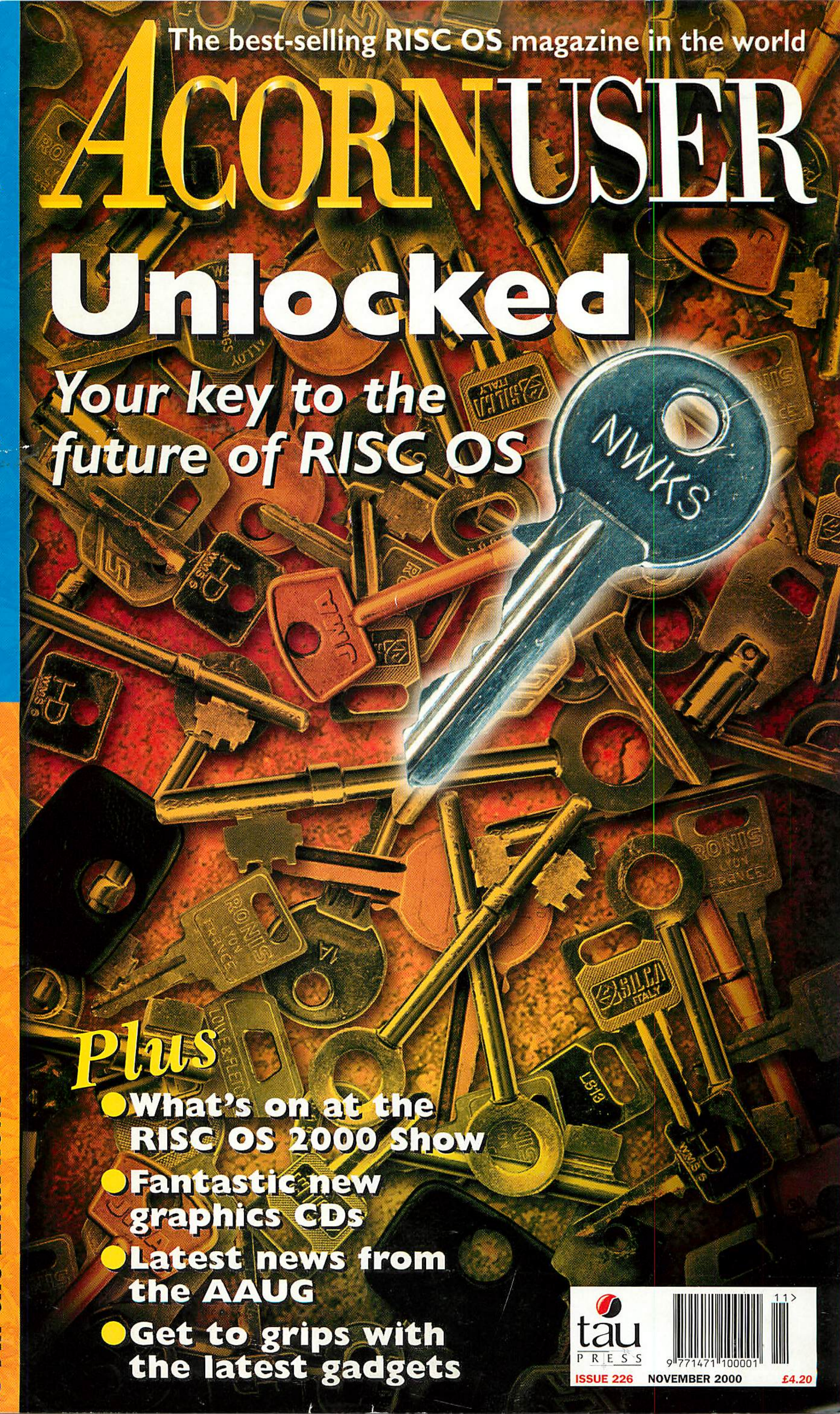
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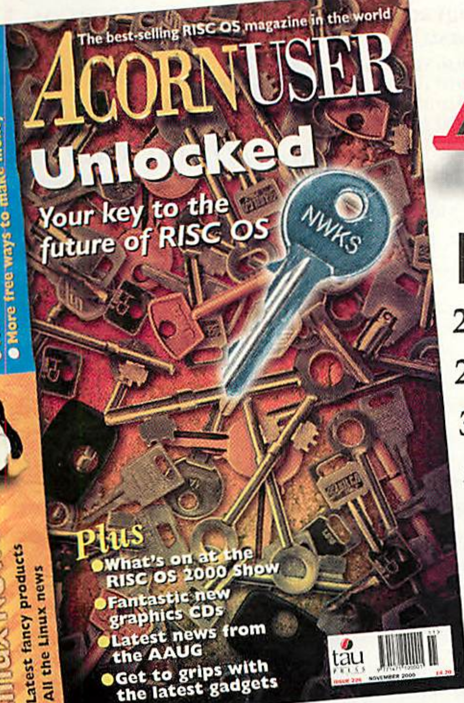
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November 2000

ACORN USER



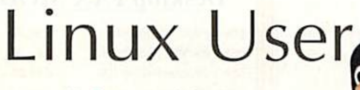
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Linux User

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That old chestnut has reared its head again: the question of computer error. The fault that prevented to the 'A' level results in Scotland from being reported was a computer problem.

This makes me seethe.

There ain't no such animal, except in those very rare cases where a hardware fault imperceptibly corrupts instead of causing a crash – which is almost always the result. Computers don't work a bit, they either work well or they fail.

Cars are another matter of course, given sufficient years of abuse they will work "after a fashion" stagger on mile after mile until eventually wheezing their last and expiring.

Can you imagine a computer doing that? Never.

Software is never at fault, it only does what's written, ultimately it has to be the human that wrote the code. Whether he was ill-informed, stupid or malicious is not the point, he made the mistake.

In this day and age, computer languages are designed to make programming of large systems easier, it's frightening to think that some people just don't do it right.

Let's face it, Geoff Titmuss can do it right, so why can't anyone else — sorry, was that Geoff Who?

Many moons ago I first met Geoff when he had programmed a DTP package for his wife. He called it *TextEase* and before he'd put finger to keyboard, he had designed the entire package using the Booch method.

Booch? Grady Booch and others had long been working on ways to make programming simpler for large projects, eventually three of them joined forces and created UML (Unified Modelling Language). UML is quite staggering in concept and if used right will let you create complex computer systems that don't screw up.

But still governments spend millions on systems that do screw up. Scary.

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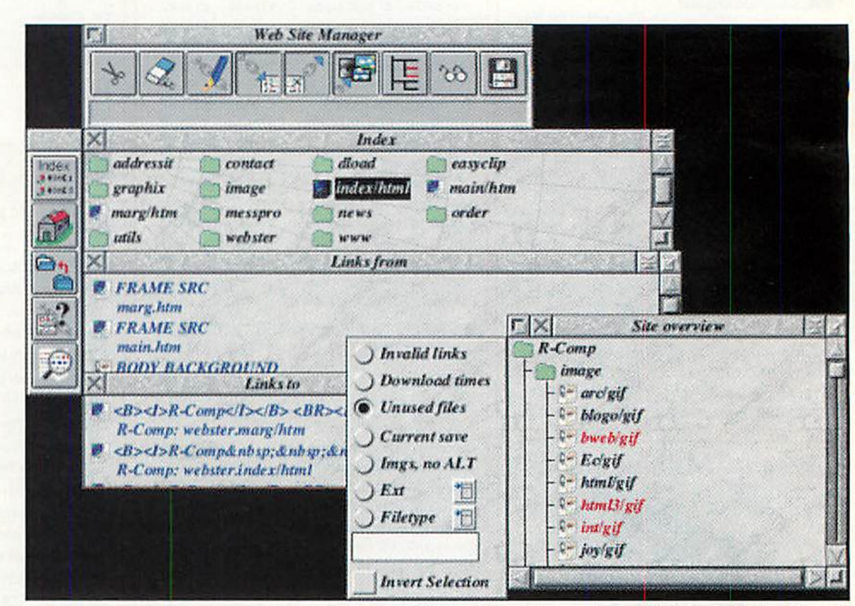
New masters for world weary web

Just when you thought things had gone a bit quiet on the Internet front the two major players in the field of Web site creation simultaneously release updated versions of their software

First off the mark we have R-Comp who have just announced the release of a new version of its *SiteMaster* Web site management system: the excitingly named *SiteMaster 2*.

SiteMaster 2 is a completely new version of the software, operating about three times faster (making handling of large sites much more practical) and with many new and improved features:

- New site-wide search/replace including full wildcard searches, refining of the "found" list, replacement of selected finds and much more;
- New tree view options for identifying files of specific type or file extension. Tree view finds can also be "inverted" to show those "not found";
- New "mark as used" system to include extra resources in your site, which would not normally be regarded as used such as Java sub-class files, external JavaScript resources, other scripts and so on. *SiteMaster* generates extra <Meta> tags allowing you to identify which pages require these extra resources.
- Setting the "root" directory for a site. Some page authors need to make references to files in links relative to the root directory (for example href="/pages/index.html") but may have the site lower down the directory structure on their hard drive. The package now allows you to set a particular directory to be the "root", so that it can deal with this situation correctly.



Yu can choose to control your Web site with SiteMaster 2

- Most existing features have been "refined" to ensure that they better cope with unexpected situations;
- Enhanced "Save/Export Site" options, including automatic support for saving as Zip and Tar archives, if used alongside *SparkFS* from David Pilling.
- Native export for Zip, Tar and GZIP'd Tar (.tgz)
- Support for RISC OS 4 long filenames
- Allows "reporting" on sites, which will generate a single list of broken links/images and other information for you to work from.

In addition, *SiteMaster 2* also comes with a new version of the *Publish* application which has been refined based on professional user feedback. The software, which allows pages to be built from shared/common building blocks, and have the contents automatically updated, now has a script system, which allows whole sites to be "published" in one click.

Using this, sites have a single file (a bit like a makefile in programming terms) which when run will build

What? No CD?

You may have been expecting a CD with this issue of Acorn User – don't worry, no mistake has been made.

To ensure you get the best quality CDs and to coincide with the RISC OS 2000 Show the next CD has been delayed by one issue but fear not, you'll still be getting your four CDs each year with Acorn User.

Watch out for the programmer's special CD with the very next issue of Acorn User.



the site from its constituent parts. These parts may be situated on other drives, over networks (tested with Access/Omniclient/LanMan98) and so on. All the resources can then be drawn together to form the final site, ready for uploading or network deployment.

SiteMaster 2 also includes *WebUpload* to upload sites. The package is still relatively simple to use, yet fulfils the requirements of professional Web designers and Webmasters who have been actively involved in the *SiteMaster* 2project.

SiteMaster 2 costs £30. Upgrades from version 1 cost 10ukp. Anyone who purchased *SiteMaster* within a month preceding the release of *SiteMaster 2* on August 21st 2000 will be eligible to receive the update free of charge. Prices include UK carriage. EU please add £2. Rest of world please add £5.

R-Comp, 22 Robert Moffat, High Legh, Knutsford, Cheshire WA16 6PS Tel: (+44) 01925 755043 Fax: (+44) 01925 757377 Web: *www.rcomp.co.uk*

SiteWriter rebounds

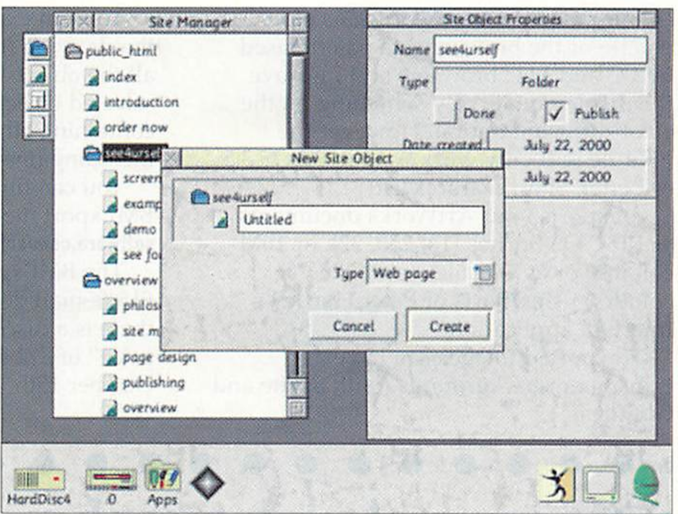
Not to be outdone Dansoft, quite heavily criticised for the un-RISC OS-like user interface of the first version of of *SiteWriter* has done the business and released version 1.2 which, it claims, is a significant improvement over the original release. A new demo and example SW file can be downloaded from the Web site.

Improvements summary:

- RISCOS standard interface
- Introductory booklet (23 page)
- Host of additional interface improvements
- Option to scale images to any required size
- Simpler colour handling with RISC OS colour picker. Also ability to set grid and element border colours
- Drop images and text files onto your page
- Efficient publishing — only used images are published
- Preview your page quickly in web browser with images updated too
- Improved support for external assets — easier to use Web counters and forms.

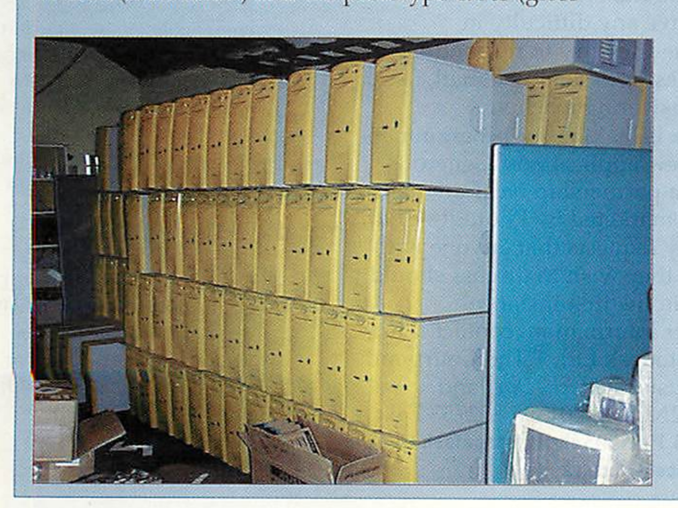
Take a look at: **www.dansoft.co.nz/sitewriter/**

SiteWriter is an actively developed product and is therefore improved over time. An update to version 1.2 is available for existing users (who have already been notified). E-mail: **dan@dansoft.co.nz**, Web: **www.dansoft.co.nz**



Get what Acorn promised at last

CTA Direct (01942 797777(have bought up the original Phoebe cases. They have both the intended production version (matt finish) and the prototype cases (gloss finish). They are selling the bare cases for £25.00 + VAT and have been shipping around the UK and Europe (people are paying more there for shipping than the case cost).



Stacks of Phoebe cases for you to play with – be the envy of your Acorn-owning friends





Getting it in bit-maps too

Martin Wuerthner continues to expand *Artworks* with yet another useful module: the new ArtWorks bitmap export module. The new bitmap exporter module is the ideal tool for everyone who needs Sprite or GIF output from *ArtWorks*.

It allows you to save your graphics directly from *ArtWorks* without any post-processing needed. There's no need to use *Paint* to make the background transparent because there's a transparency option. And you can export the minimal area covered by objects or export any rectangular area plus a border of arbitrary width around the bitmap.

You can choose from a variety of colour palettes from Acorn 256 colour palette or the browser-safe palette used by PC and Mac browsers and improve the display quality by switching on the error diffusion option. However the module will only work with RISC OS 3.5 or better. Short features list:

- exports your ArtWorks documents as RISC OS Sprites (16, 256, 32k or 16M colours) or as GIF files (up to 256 colours) using parts of Peter Hartley's InterGIF application
- exported images can have transparent backgrounds (both Sprite and GIF files)
- export with standard Acorn colour/greyscale palette, browser-safe (Netscape and MS Internet Explorer) palette or optimized palette
- error diffusion for maximum quality (for up to 256 colours)
- supports all ArtWorks features including deep sprites and new object and fill types provided by add-on modules (such as Replicate, Hatch and so on)

One of the main strengths of the exporter is the comfortable selection of the output area and scaling: Simply specify the desired width or height of the bitmap, the absolute scaling or the desired resolution in dpi.

You can export the complete page, just the drawing (the minimal area containing all the objects on the page), just the selected objects or the minimal area containing all the selected objects but including unselected objects in this area.

You can find out more about the BMExport module at **www.mw-software.com/software/awmodules/bmexport.html**

The BMExport module is available for £15 (e-mail delivery). For early buyers, there is a discounted "early buyer's price" of £12.50 (e-mail delivery) until October 15th. for snail-mail delivery add £2.50

Photodesk is back with a vengeance

As of the 1st September Photodesk Ltd started trading, supporting all Spacetech products and developing them. The company will be attending the the RISC OS 2000 show with new and updated products.

Photodesk Ltd will continue to supply Olympus digital cameras and continue development on RISC OS drivers. Work will also continue on PhotoReal drivers, although continued support in this area has proved difficult.

OHP presentation software is still in development, and a new edition of *Photodesk* imaging software is expected for the show.

Managing director Chris Hornby said: "Photodesk is a smaller outfit than Spacetech, in fact it is just me at the moment. I do, however, expect to expand along with the RISC OS market. If customers have any difficulty in contacting me I will try to respond quickly to messages sent by e-mail, fax or left on the answering machine."

Photodesk is looking for programmers to develop new applications. Generous royalties on a partnership basis are paid for products marketed by Photodesk Ltd. Chris Hornby requests that anyone with a pet project they wish to discuss should contact him in the first instance.

For further information, contact: Chris Hornby, Photodesk Ltd, 1 The Courtyard, Southwell Business Park, Portland, Dorset DT5 2NQ. Tel: 01305 822753 Fax: 01305 860483 E-mail: **chris@spacetech.co.uk** Web: **www.spacetech.co.uk**

In brief

No more demons

ExpLAN Computers Ltd, the publishers of the *HolyBible* software suite and RISC OS printer drivers, has changed its internet addresses for e-mail and Web site. Both of these no longer contain the word "demon", but are otherwise similar.

The new Web site on **www.explan.co.uk** now contains a much extended section on *HolyBible* software modules in particular. Further changes are in progress.

A RUM do

People who wants to know more about the RISC OS platform are invited to come to the RUM2000! The Riscos Usergroup Meeting 2000 in Eindhoven this year on the October 14th. For more info please visit: **www.riscosuser.myweb.nl**

Search some more

!RiscSearch is a meta-search engine available for RISC OS. It helps you finding Web pages about a certain topic by asking different search engines about that topic. It collects results from ten different engines, sorts out duplicate matches and then presents all matches in a window of your Web browser. the latest version is now available from **www.patrick-mortara.de.**

Cleaner mouse

APDL have had a number of enquiries from people who want to purchase a new Acorn compatible mouse. One of the main reasons for this is because after a lot of use the micro switches wear out and one or more buttons either stop working or give the effect of 'double-clicking' when you only click once.

They have therefore decided to offer a Mouse Overhaul service. For just £6 + £1 for return post APDL will disassemble and clean any genuine Logitech A5000 or Risc PC Acorn mouse and fit three new high quality microswitches and a new

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  Machines fitted with RISC OS 4 run typically 40% to 50% faster than equivalent RISC OS 3·7-based hardware—a major speed benefit which is particularly valuable for computers without StrongARM processors
- **Extra ease of use**
  RISC OS has a reputation for having the world's most efficient desktop interface, and RISC OS 4 improves it still further with new desktop enhancements, improved stability and even greater user-friendliness
- **Remarkable compatibility**
  RISC OS 4 is arguably the most backwards-compatible operating system upgrade for any modern computer system: virtually all software and hardware that works with RISC OS 3·5+ also works with RISC OS 4

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Schools: Schools may purchase an evaluation copy of RISC OS 4 for **£69 ex. VAT** *(strictly one unit per school; official purchase order required)*

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Manuals CD

Get the complete RISC OS 3 Programmer's Reference Manual (PRM) on one CD-ROM, along with a plethora of other user guides

The Manuals CD contains not only the PRM but also many other manuals, all corrected and cross-referenced in HTML format. Many guides are also supplied as *Acrobat* (PDF) files. The complete contents of the CD are as follows:

	HTML	PDF
RISC OS PRM volumes 1–4	✓	✓
RISC OS PRM volume 5a	✓	
RISC OS User Guide	✓	
BBC Basic	✓	✓
Assembler	✓	✓
C/C++	✓	✓
Toolbox	✓	✓
DDE	✓	✓
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TimeCode	✓	
OmniClient	✓	

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RISC User

The CD-ROM magazine for members of the RISC OS Foundation

Issues 1 to 3 already available!

Join the RISC OS Foundation and receive the ground-breaking new CD-based magazine, **Foundation RISC User**, every quarter. **Foundation RISC User** is far more than just another CD full of software; it is a true multimedia magazine which sets new high standards for quality on the RISC OS platform. Every issue of **Foundation RISC User** is packed with substantial, interesting and useful articles by highly respected writers, plus news of the latest developments from RISCOS Ltd and its partners and third party developers, a forum for information exchange between RISCOS Ltd and RISC OS enthusiasts, and a comprehensive and fully cross-referenced database of hardware and software products and user groups. The entire magazine is fully indexed and extremely well organised, and is presented in a highly innovative, integrated format which redefines the concept of a magazine.

Comments from readers of Foundation RISC User

"Well done on a BRILLIANT CD!!!"—*Chris Flynn* • "It's a really excellent job."—*David Pilling*

"**Foundation RISC User** shows why its Editor, Richard Hallas, received the *RISC OS '99 Award for Editorial Excellence* when he edited **RISC User** for Beebug. It is a smart, professional-looking publication."—*Peter Jennings,* **Eureka** *magazine*

"The Foundation CD has contradicted my opinion that I wouldn't be able to read a CD magazine happily."—*Fred Bambrough*

"I'm extremely impressed with the Foundation disc. It looks good, reads well and is simple to navigate."—*Richard Blythe*

"The interface is very friendly and better than my perception of what a CD-based magazine would be like!"—*Andrew Weston*

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www.riscos.com
sales@riscos.com

Lib-Dems don't like it

At their conference last month, the Liberal Democrats condemned the Labour government's new law that allows law enforcement agencies to tap into people's private e-mails.

Commenting on the controversial Regulation of Investigatory Powers Act (RIPA), Martin Tod, Chair of Liberal Democrats Online, said:

"The legislation is a severe attack on the civil liberties of British citizens and will have a detrimental effect on the economic prosperity of the UK. We have opposed this legislation at Westminster, and now that it is law, we will continue to campaign against its provisions. Liberal Democrats will not tolerate this infringement of our civil liberties."

The Liberal Democrats debated a motion that strongly condemned the Act's severe threat to individual freedom and civil liberties, but backs the provisions that ensure that certain law enforcement powers comply with the European Convention on Human Rights.

In particular the motion attacked:

- The provisions of the Act that allows any 'authorised person' to demand access to your encrypted data, without needing a warrant or court order, and thus read all your private correspondence.
- The Act's general presumption of guilt unless a defendant can show their innocence, thus reversing a fundamental principle of the legal system.
- The requirement on Internet Service Providers to allow the authorities access, without need for warrant or court order, to track all messages sent by all subscribers.
- The power given to the Home Secretary to authorise unlimited electronic snooping "in the interests of the economic well-being of the UK".
- A potential prison term for anyone who complains publicly about a miscarriage of justice under this statute.

More charity on the Web

Internet users all over the UK will be able to do their bit to provide deserving charities with IT services and equipment, as the virtual doors of the Computers for Charities Web site are thrown open to the public.

The site, which is located at **www.computersforcharities.co.uk**, was initially conceived and developed by Computer Shopper magazine, and is sponsored by Microsoft, AMD and Life Software.

Negotiations are continuing with other sponsors and it is hoped the site will provide deserving causes with everything from hardware to application software and Internet access.

"Since we started work on this initiative, it has become clear that the UK's IT community is keen to put something back into the community," says Mick Thorburn, publisher of Computer Shopper magazine. "We believe that many charities, especially the smaller ones and those which are starting up, find that purchasing and setting up IT equipment eats into their precious budgets. We hope that this initiative will relieve a number of charitable organisations of their IT burden and allow them to do what they do best... helping others."

The Computers for Charities site works in a very simple fashion. Each of the sponsors pledges to donate a minimum value of goods and services. This value then increases depending on the number of visitors which the site attracts.

To date, the Computers for Charities campaign has received requests for equipment and services from 17 charitable organisations. Details of the initial beneficiaries will be posted on the site within the next two to three weeks. Charities which would like to benefit from this initiative can find details of how to apply on the site.

For further information, please contact either Ciaran Brennan or Christina Erskine at Bastion Ltd. 87 Charterhouse Street, London EC1M 6HJ. Tel: 020 7490 1323. Fax: 020 7490 1350. Web: **www.bastion.co.uk**

In brief

heavy mouse ball. This is about half the price of even a low cost replacement and it will normally make your mouse even better than new.

To qualify for this service your mouse must be in good general working condition. For more information contact: APDL 39 Knighton Park Road Sydenham London SE26 5RN Tel: 020 8778 2659 E-mail: info@apdl.co.uk

On the ROX

The ROX desktop which provides a RISC OS-style Windows interface on Unix/Linux machines, was recently reviewed in issue 4 of *Linux Format*, where it scored 8/10 – not bad for a one-man operation – and it demonstrates that the RISC OS interface works well regardless of the underlying system.

Recent additional changes – some of which go beyond what RISC OS offers include:

- **Spring-loaded directories which, if you drag a file over a directory and hold it there, the directory springs open so you can drop the file in.**
- **Renaming now uses the action windows which means that you can now rename something onto another file system by dragging it from the Rename box.**
- **The toolbar Up and Home buttons can act as drop targets and spring open too.**
- **Dragging near the edge of a window scrolls it; Improved the lasso box drag to use the same system (so it scrolls without you having to move the mouse).**

There are now two mailing lists, rox-users for people who just want to use it and rox-devel for those helping in the development. You can subscribe to these lists *via* http://sourceforge.net/mail/?group_id=7023

The author, Thomas Leonard, can be contacted on tal197@users.sourceforge.net and the ROX desktop is at http://rox.sourceforge.net

Contacting AU

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Kinetic Internet (128+8+2Mb, 30Gb, 44x, 56K)	£1409.00

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Risc PC 16+0Mb, 4Gb HD	£948.00
Risc PC 16+2Mb, 4Gb HD, 40x CD	£1039.00
Risc PC 32+2Mb 8Gb, DVD CD	£1099.00
Web Wizard – 32+2Mb, 8Gb HD, CD, speakers, Internet pack with Oregano & 56K modem	£1179.00
Sprinter – 10baseT NC, 16Mb, kbd & mouse	£361.00



RiscStation Series

Item	Price
R7500 Lite (no monitor)	£598.00
R7500 Lite (with their 15" monitor)	£715.00
R7500 Lite (with their 17" monitor)	£774.00
R7500 Lite (with their 19" monitor)	£891.00

The Lite+ model is the same as the Lite, but has an 8.4Gb HD and 64Mb RAM fitted as standard.
R7500 Lite+ — To Lite prices, please add £94.00

The Scorcher model is the same as the Lite, but has a 10Gb HD and 64Mb RAM fitted as standard, plus at least a 4x4x24 CD ReWriter, CD Burn and a blank disc.

R7500 Scorcher — To Lite prices, please add £315.00
R7500 Scorcher Twindeck (as Scorcher, with additional 48x CD drive) — To Lite prices, add £349.00

POSsum EPOS system — £Call

The Networx model has the same specifications as the Lite but has no HD or CD fitted as standard. Monitors available for the same price differences as with the Lite.
R7500 Networx (no monitor) — £480.00

The Networx HD model is the same as the Networx, but has a (minimum of) 2Gb HD fitted as standard.
R7500 Networx HD — To Networx prices, add £59.00



Psion Computers

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Revo	£284.95
Series 5mx	£408.50
Series 7	£664.95
netBook	£870.00



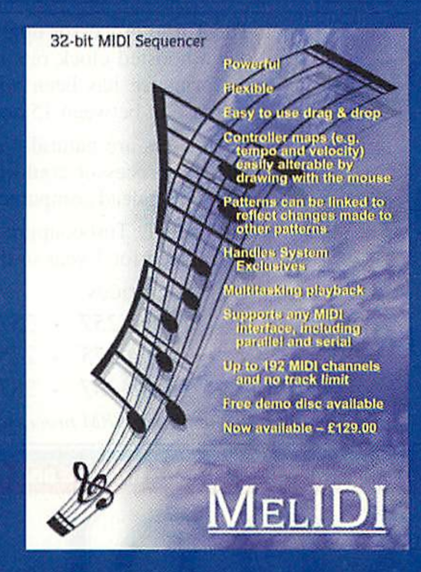
We supply a range of CCD and laser bar code scanners which include our !BarReader driver software to allow bar codes to be read into and control most desktop software.

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Further information is available.
!BarCoder – £69.32



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iiyama S500M1 (15")	£159.00
iiyama S700JT1 (17")	£205.00
iiyama Vision Master 404 (17")	£269.00
iiyama Vision Master Pro 410 (17" NF)	£299.00
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iiyama S900MT1 (19")	£269.00
iiyama Vision Master 451 (19")	£415.00
iiyama Vision Master Pro 450 (19" NF)	£439.00
iiyama Vision Master 502 (21")	£765.00
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iiyama Pro-Lite 3612 (14.1" LCD)	£826.00
iiyama Pro-Lite 3813 (15" LCD)	£802.00
iiyama Pro-Lite 3823 (15" LCD)	£825.00
iiyama Pro-Lite 3833 (15" LCD)	£1020.00
iiyama Pro-Lite 4633 (18.1" LCD)	£2340.00
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Touchscreen monitors coming soon.

Memory Upgrades

Please call to check current prices.
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A3020/A4000 2-4 Mb	£49.00
A5000 2-4 Mb	£55.00
A300, 400, 5000 4-8 Mb	£128.00
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16Mb FPM	£36.25
32Mb FPM	£66.25
32Mb FPM (high clearance)	£73.50
64Mb EDO (works in Risc PCs)	£63.50
64Mb FPM	£153.95
128Mb FPM HC	£225.00
1Mb VRAM	£45.00
1-2Mb VRAM exchange	£55.00
2Mb VRAM	£92.00

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Please call for other musical items

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DMI 50 dual MIDI card (2x2)	£119.95
DMI 50XG	£259.95
XG upgrade for DMI 50	£151.95
16-bit sampler for DMI 50	£87.95
MIDI Max II internal 1x1x1	£92.75
Parallel Port 1x1x1	£89.20
RiscStation drivers & cable	£17.95
RiscStation XG card & cable	£116.95
RiscStation XG card, cable & keyboard	£245.95
Synth 8 or Basic Synth	£46.95
Synth Plus	£58.65
Music & Sound Programmer's Guide	£16.95
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Fatar SL 1100	£800.00
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Yamaha YST-M8 speakers	£45.50
YST-M15 speakers	£57.50
YST-M20 DSP speakers	£65.75
YST-MS24 (2x satellites & subwoofer)	£109.95
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Sibelius 6	£99.95
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Sibelius 7	£520.95
Sibelius for Windows is also available	
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Studiosound	£116.95

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Item	Price
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Mouse (Acorn/Logitech)	£23.95
Mouse (PS/2 Logitech)	£12.95
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RISC OS 4 (fitting available)	£120.00
RiscStation internal modem pack	£99.95
RiscStation second serial port	£Call
Scanners	£Call
StrongARM & RISC OS 3.7	£269.00
StrongARM & RISC OS 4	£299.00
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ViewFinder card	Approx. £235.00

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Item	Price
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ANT Internet Suite 2	£112.00
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Chaos Engine	£19.50
DataPower 2	£165.00
Doom+ CDs	£30.00
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TechWriter Pro+	£189.95
TopModel 2	£145.00
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Books & Manuals

Item	Price
RISC OS Manuals CD	£29.95

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Discs (e.g.10x white discs – £4.99, 20x black discs – £6.93, 50x black discs – £13.99)
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The way it was before

Andre van Berg on the non-joke that was Acorn

I have been selling Acorn products since 1982, was directly involved with Acorn's export dept in 1987/88, then 1992 and further. During those years I've visited many dealers, been to many Acorn shows, It's impossible to think about a future without looking back.

In Holland — and many other countries — there's always been the feeling that we had to sell Acorn computers despite Acorn. Why? A total lack in marketing and advertising: we even once had an advertisement with the slogan 'England's best kept secret'.

The main reason for this, in my opinion, was the comfortable position of Acorn in education. While we were successful in niche markets such as image processing and DTP, Simon Woodward was taken off the job in professional sales just when we started to be successful with AB Dick the manufacturer of small offset presses in Holland, Germany, Belgium and the UK because, you won't believe it, 'DTP was not core business'.

And that was just at the point that AB Dick had a huge sum of money budgeted for an international advertising campaign (one Dutch AB Dick salesman sold, I think it was 1993, twenty systems of £7000, each in one month without even knowing what DTP was. So be it.

Anyway, as the great American philosopher Redd Foxx once said: "I'm well aware of the fact that there is no money to advertise in PC magazines, but one way to get more eye-contact with new users is a simple car sticker, to be put on the rear window."

Acorn had them once. And maybe just 'Acorn' was good enough for the UK; for us it would have been much better with the addition 'the fastest personal workstation in the world' or something like that.

That is one huge opportunity missed; these 'RISC OS, the best operating system in the world' stickers could have been in each RISC OS upgrade pack sold.

It's not too late. RISCOS Ltd has the addresses, dealers have their own. Create a good RISC OS logo better than the ones we have now and make something that sells, cheaply.

One of my complaints to Acorn was always that they've marketed the hardware, not the software. We had to translate the first Risc PC brochure word for word, under pain of death.

But, I sneaked in the 'aa' (anti alias) word...

Another important issue is a demo video. You can give a flashy demo to a prospect but when he meets his PC-friends and tells about it they will say 'my PC does that too — forgetting about all the non-standard utilities they have to gather before they can even come near. The prospect will not have answers. But if he would be able to show a video of RISC OS-use, his friends might be flabbergasted and the prospect will be able to defend RISC OS.

The dealer should ask for the video back, for cost and environmental reasons, but in fact to create an opportunity to talk to the customer for the second time This video doesn't have to be professional. Just a genlocked ("Hi Millipede") demo performed by a skilled RISC OS user. Maybe with a voice-over or the possibility to add comment. There are so many presentation programs. Why not use these to mix a presentation with demo's of software? Simply showing what *Draw* can do could be sufficient, especially dropping a *Draw* result into an *Ovation* window, as if you were dropping a lump of sugar in the tea — or coffee in Holland.

Random memories...

When we presented a Prestel-compatible multi-tasking host system in 1984 to the Acorn board, David Johnson Davies commented: 'Gentlemen, this product is far superior to Communitel'. Acorn ordered 100 units at £995 each and dumped them in a warehouse ... well we reached the Dutch press with 'Dutch company gets huge software order from English computer company'; we had a good laugh and some money to spend...

When we asked for larger harddisks than 40 Mb — needed for the graphics in the printing industry, meaning also more turnover for Acorn and us, we heard: 'education doesn't need it.

When we suggested that the word 'RISC' on the dull looking A5000 could be something for an owner to brag about or for other people to start a conversation, the answer was: 'It might scare people off'.

'Risc PC', by the way, is a Dutch invention. Paul Reuvers (X-Ample Technology) and I had suggested it for the A5000....

When we had a fantastic chance to get free publicity nationwide — legal action against Apple who were bragging 'we are the first etc. with a RISC CPU' (good marketing by the way), we were not allowed to do that. We had already convinced two lawyers and a judge...

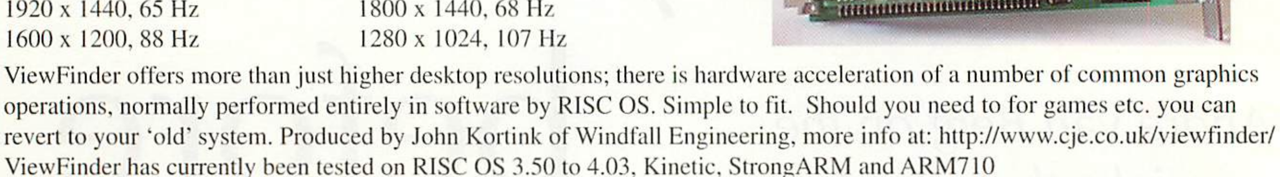
Over the years Acorn did it wrong so many times that we are left with a mess. It can be fixed but we need to work together with some good, cheap, ideas and we need to do it soon.

END

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ViewFinder offers more than just higher desktop resolutions; there is hardware acceleration of a number of common graphics operations, normally performed entirely in software by RISC OS. Simple to fit. Should you need to for games etc. you can revert to your 'old' system. Produced by John Kortink of Windfall Engineering, more info at: http://www.cje.co.uk/viewfinder/
ViewFinder has currently been tested on RISC OS 3.50 to 4.03, Kinetic, StrongARM and ARM710

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The CJE RISC OS Programming Initiative

RiscPCs for £100 to programmers! Recently we were made aware of one programmer developing for the RISC OS market, who had just one computer. To check compatibility with different versions of RISC OS, he had to keep swapping 3.50, 3.60, 3.70, 4.02 & 4.03 ROMs. We realised this was very inefficient and supplied a s/h RiscPC which has improved his productivity no end! We have a quantity of RiscPCs that allow us to make a special offer open to programmers. RiscPC 610 + RISC OS 3.60 + 16MB + 1MB vram + HD for £100+VAT+carriage. We do need suitable evidence of programming/hardware projects underway. Please send details to info@cje.co.uk

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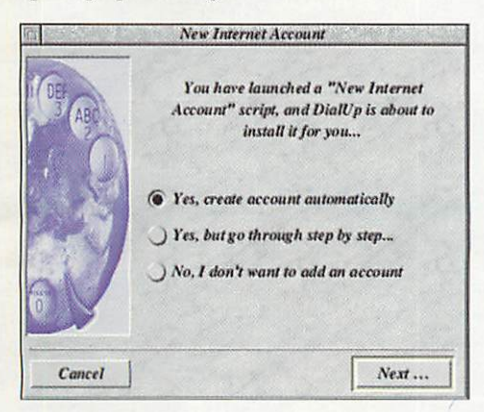
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DialUp does it all

For once, RISC OS computer users have the luxury of choice when it comes to Internet connection software. Unlike *Windows* users who have little alternative to using the built-in *Dial-Up Networking (DUN)*, most versions of *RISC OS* were supplied without any means of actually connecting to the Internet, which might seem like a lamentable omission.

This gap has been filled by a plethora of third-party products, ranging from the commercial *ANT© Internet suite*, Acorn's own *!Connect* application, and Argo's *!Voyager* suite, to the freeware offerings of *!Acornet*, *!ArmTCP*, *!Socketeer* and others. Confusingly this wide choice of products all have different setup arrangements, so many Web sites have sprung up offering advice on how to use them. Wouldn't it be good if after a few minutes spent signing up for Internet access at a free ISP's Web site such as FreeUK, UKonline, or UKgateway, you could have your RISC OS computer automatically set up for access, using the *Windows* DUN information file that the site sends you?



DialUp from R-Comp recognises these standard ".ins" files and sets up itself and your machine for you. It will configure popular freeware *RISC OS* Internet e-mail and news applications *PopStar* and *Newshound*, and only requires a Web browser and Mail reader to form a complete Internet suite. Like *Windows* DUN, it can also dial-on-demand when you need an active connection.

DialUp is initially available as part of R-Comp's *WebsterXL* browser support package and with their "Get Online" modem, browser, mail-reader, free ISP account and connection software package which costs just £113 all in.

For more information, contact R-Comp at:

Product: DialUp
Address: R-Comp, 22 Robert Moffat, High Legh, Knutsford, Cheshire WA16 6PS
Web: www.rcomp.co.uk/
E-mail:rcomp@rcomp.demon.co.uk
Tel: (+44) 01925 755043
Fax: (+44) 01925 757377

Cleaning up the news

It's quite challenging to post a comment or reply to a Usenet newsgroup that is useful, constructive and informative. But what can you do if you change your mind about your post, when you find out some new fact materially affects your argument?

You can either brave it out and wait for the "flames", or you could issue a cancel message. The ability to cancel one's own messages is an action that the Usenet system has always catered for, and a function of existing mail-readers on many platforms, yet hardly any authors bother to cancel.

Cancelling messages requires a thorough knowledge and understanding of the "cancel meta-criteria", and great care is needed as it is also possible (and sometimes necessary) to issue a third-party "cancel" which can remove someone else's message.

A cancel message has to adhere to the strict formatting and header requirements of the "cancel protocol", and ends up in a special newsgroup called control.cancel to which you can subscribe and read if you want to. Before practising in the black art of manual cancelling, you must know what you're doing.

The RFC1036 document that lays down standards for News article format and transmission starts the story, and can be found at **www.rfc-editor.org/rfc/ rfc1036.txt** Further information can be found in two FAQs, the Cancel-FAQ at **www.ews.uiuc.edu/ ~tskirvin/faqs/cancel.html** and Rosalind Hengeveld's Newsgroup Care Cancel Cookbook at **www.xs4all.nl/ ~rosalind/faq-care.html**, which describes the details of how to help to clean up the newsgroups.

In brief

Surfing Demon

Demon Internet's long-awaited Premier Connect and Premier Connect Plus SurfTime products are to be launched on 9th October. Demon's Malcolm Muir blames other ISPs failure to deliver unmetered Internet access on unrealistic business models and insufficient network infrastructure.

Demon's pre-launch investments will maintain its long record of network quality and customer service while reducing the total cost of Internet access. All customers will benefit from lower call charges, and BT SurfTime subscribers using Premier Connect will get 'free' evening and weekend calls. Full details are on the new Demon Web site.

www.demon.net/products/access/ premier-packages.shtml

Surf 'n' Talk

Unconfirmed reports are coming in of a new service for those BT SurfTime customers who use PCs enabling them to make phone calls over the Internet while using the line for Web browsing. Possibly named SurfTalk, the service will initially only allow calls between SurfTalk-registered customers.

It may be extended later to allow SurfTalkin' to any voice number in the UK for a monthly flat fee. Rumour has it that three months free rental may be offered as an additional launch inducement with a projected charge of 99p per month thereafter.

Can it be true?

Contacting me

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Power drawing from Basic

I discovered this invaluable utility a few weeks back when I was having difficulty converting some symmetrical designs (crop circles, my other passion besides RISC OS) into drawfiles for uploading to my Web site.

Although *Draw* is very powerful, easy to use and above all, built into RISC OS itself, it can sometimes be difficult to construct regular diagrams via freehand or replication techniques alone.

Following a plea on the Acorn newsgroups — a handy place to lurk if you ignore all the irrelevant mutterings — I was pointed to this useful application which can produce drawfiles via a simple programming commands. To gain full use of the application does require knowledge of BBC Basic, but for creating complex diagrams via a few simple commands it's a godsend, and well worth persevering to gain maximum results.

It comes with comprehensive documentation in the style of linked Web pages which you can view in your favourite browser. Included are numerous examples and diagrams so you can see the different effects available.

Suffice to say, *DrawBasic* probably has more commands than you will ever need and includes commands for drawing simple lines and shapes to logo commands for moving forward a certain distance and rotating etc to complex curve and graph plotting features. Units can be in inches, cm, mm, points, picas, OS units and Draw units and virtually all draw functions have an associated command to enable you to include it in your program.

A handy toolbar contains all the common functions as menu options so that if you can't remember the command you want, simply browse the toolbar sections, which are grouped for functionality.

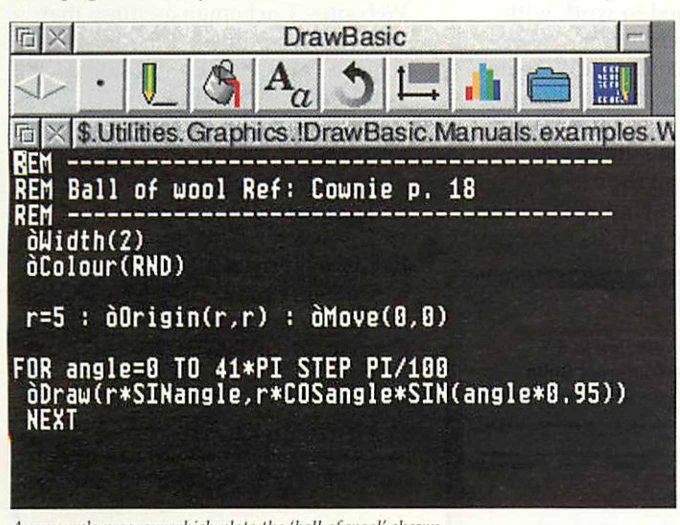
Selecting a command from the toolbar merely inserts the characters at the caret position in your text editor — in which all *DrawBasic* programs are constructed.

As you can see from the example program, *DrawBasic* programs consist of ordinary BBC Basic commands, but with additional commands inserted by prefixing them with a special 'dot' character. By following this syntax, *DrawBasic* programs can utilise the full range of BBC Basic programming commands and as such you can rapidly build up some ambitious and complex graphics.

DrawBasic also supports the creation of libraries, which means that it's functionality can be extended by the user once you've created standard routines and procedures that you wish to incorporate into future projects.

If you use *Draw* and are confident at learning how to write simple programs, *DrawBasic* is an indispensable add-on and one of those few applications that I wonder how I made do without it.

Written by Joe Taylor, it's published by The Liber Abaci Press and available to download from their Web site at **www3.mistral.co.uk/joe_taylor/drawbasic/**



An example program which plots the 'ball of wool' shown



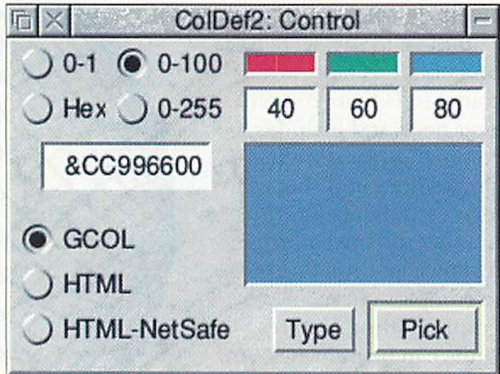
Colour conscious

This utility will be of use to anyone who wants to see a numeric display of the Red, Green and Blue (RGB) values of any selected colour. Webmasters will especially find it useful for selecting font and background colours when designing Web pages.

You can choose any colour, either by specifying RGB values or by picking from a standard RISC OS palette display. *ColDef2* will interactively display the correct numeric value either as a fraction, percentage, hexadecimal or 0-255 decimal value.

Programmers can opt for output values to be in the GCOL convention of &BBGGRR00 whereas Web designers can opt for the output values to be in standard &RRGGBB notation. Indeed, design conscious webmasters can set the palette to 'netsafe' which means the nearest match to the Netscape colour palette can be found.

ColDef2 is written by Rosemary Miskin and can be downloaded from her Web site at **www.argonet.co.uk/users/miskin/net/main.html**



Light fantastic

Following a request from someone else on the Acorn newsgroups I thought I'd mention the following handy little utility: *LEDScroll*

Written by Michael Foot and available to download from his web site at **www.voyager.co.nz/~mikef/acorn.htm** this utility does exactly as the name implies and scrolls any text across a simulated LED display of the type you see in shops and railway stations.

The speed of the scroll along with the colour of the LEDs can be configured and any text can be used as the scrolling text by typing it into a text editor and then dragging the saved file onto *LEDScroll*'s icon.

LEDScroll would make a simple yet effective demo for point of sale displays and school receptions and could perhaps help put an older machine to a constructive use.

Cutting it out

While browsing around Rosemary Miskin's Web site you may like to grab a copy of *SplitDraw*. This is a another simple yet indispensable utility which anyone who has the hassle of printing out large drawfiles will immediately see as an essential tool. Put simply, *SplitDraw* will take any size of drawfile and split it into several A4-sized drawfiles.

Not only is this essential if you've designed a poster with the paper size set to something like A0, but it's especially useful if you, like me, save Web pages as drawfiles. This has the benefit of keeping a Web page exactly as you see it in your browser window, which is invariably a lot longer than a sheet of A4.

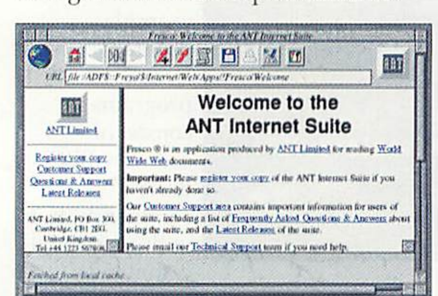
Rosemary has thoughtfully provided an option to adjust the paper size so with a bit of experimentation you should be able to split any size of drawfile into any other size.

Rebuilding the Web

Of course, an alternative to saving a Web page as a drawfile and using *SplitDraw* would be to actually save the component parts of a Web site in order to re-build it at a later time.

Enter *Cacheman* by Robert Hampton. Designed to work with ANT's *Fresco* Web browser, Cacheman can reconstruct Web sites from Fresco's cache, either allowing you to save them out in their own directory or to manually delete specific entries from the cache.

To use *Cacheman* you will need to configure *Fresco* to keep its cache on exit. It's then a simple matter of clicking on *Cacheman*'s icon in order to provide a list of sites previously visited. Unlike Web grabbing tools such as ANT's *WebTool* which specifically lets you download whole Web sites, Cacheman assumes that you've already visited the site required and that it's still stored within *Fresco*'s local cache.



Because a Web browser's cache is designed to only store a finite number of previous sites, older sites will gradually become lost as you visit new sites. This is where it's handy to periodically run *Cacheman* to see if any previously visited sites should be stored in a more permanent fashion.

Contacting AU

Paul Vigay:
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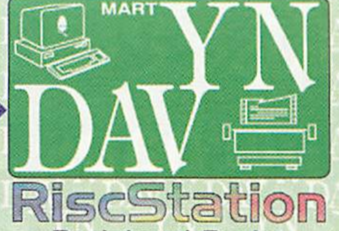


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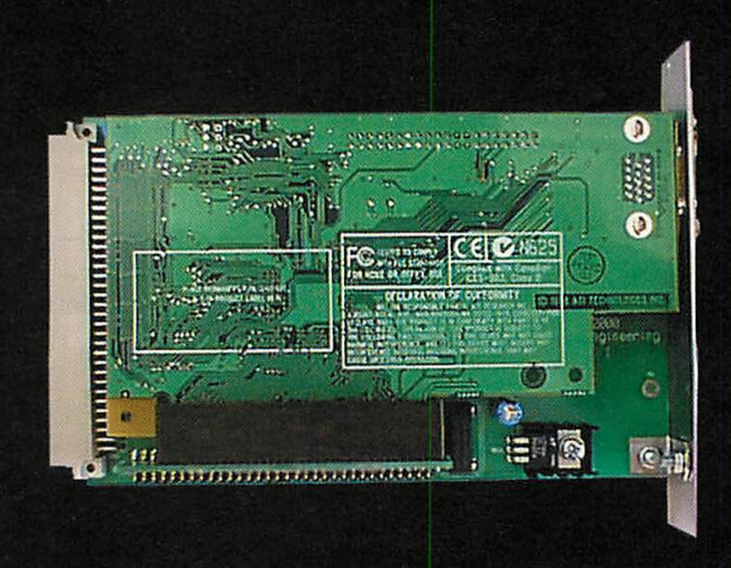
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Are we nearly there yet?

I'd like this month to take a quick survey of the landscape in the RISC OS graphics world. It's an interesting time: the future of the platform has been the subject of intense debate and scrutiny since "Black Thursday" two years ago, and many developments vital to the survival of the platform have taken place in that time.

Top of the list was the speedy licensing and development of RISC OS 4 into a commercially-releasable product for pre-Phoebe machines by the new company RISCOS Ltd. Castle were quick to adopt the rights to maintain, develop and sell the existing Acorn hardware designs.

The beginnings of world-class graphics hardware for RISC OS, in the form of the Imago concept motherboard, was one of the first clear signs that there may not only be life after Acorn, but machines better, more powerful and greatly more exciting than even the doomed Phoebe was to have been, was maybe just only around the corner. Cerilica's recent announcement of the Nucleus casing and system design, based entirely around the Imago, hints at the powerful, high-end computers of which we all know RISC OS could be capable.

But we're not there yet, and it is, to an extent, a race to get there at all. The harsh reality is that the longer the market depends on the promise of extensive continued development, the greater the extent to which we're playing catch-up to both the Windows and Macintosh worlds, and the fewer people there are using RISC OS as their system, or even as an important component within a multi-platform system.

That may seem like a depressing position to take, but I believe the realisation that the market can't wait indefinitely needs to be made, and the same sense of urgency and community that accompanied the first few months after "Black Thursday" must be regained.

Although various companies have made remarkable and sustained progress in their own domains – Castle having created the Kinetic board, RiscStation and Microdigital releasing a range of attractively well-featured (but nevertheless low-end) machines, and Windfall Engineering's Viewfinder graphics card representing the first steps towards hardware independence, finally allowing some progress to be made distancing the system from the limitations of the VIDC – a great deal of work remains to be done in moving RISC OS beyond the StrongARM and the customised Acorn hardware architecture.

These things take time and can't be hurried. Imago is an epic ambition. The goal of removing the 26-bit limitation from the operating system (allowing for the use of newer processors from the ARM stable), and creating a degree of hardware independence so that the OS doesn't entirely rely on a sequence of prohibitively expensive custom chips, is a spectacularly difficult one.

Pace, as the new proprietors of RISC OS, may well have already made great steps forward in this area, but as a company have bigger fish to fry than the classic desktop market. As a successful business, they're focussing their attentions on taking RISC OS where they need it to go. RISC OS Ltd need to develop that work into a usable product for the likes of us.

In these last two years, the software scene has consolidated and shows just as much promise as the various rescue efforts made for Acorn hardware. In the graphics and related fields, we've had David Pilling's re-acquisition of *Ovation Pro* from Beebug, and a new upgrade CD about to be released. We've had the dramatic turnaround of *RiScript Pro* into an obtainable and maintained product by Cerilica.

We've had upgrade after upgrade of Clares' *Composition*, and two complete versions of iSV Products' *DrawWorks* vector design application. We've had the very recent news of Spacetech's closure, and the formation of Photodesk Ltd in its place, with a new version (finally offering PNG support) imminent. And we've had that old chestnut of this column, Cerilica's *Vantage*, slowly getting there.

It's no secret that Cerilica's key technology is their extraordinary, and long-finished, *TRUISM* colour management system – and I personally hope that they can eventually flog that technology to the likes of Adobe for countless millions. But like many of the other core components of the RISC OS graphics software scene, and indeed RISC OS software in general, *Vantage* is a one-man effort, and it's unreasonable to expect the same level of development speed in those kinds of circumstance than other platforms receive from dedicated teams of programmers.

The dedication of the likes of the Pillings, Hornbys, Davidsons, Timbrells and Birtwistles, the Lillingstones, Jozefowskis, Heslops, Atkinses and Kortinks of this world, is what keeps us in the race. It isn't lost yet by any means, but it's still being run, and can't last forever.

Contacting AU

graphics@acornuser.com

RISC OS Show 2000

On 21 and 22 October the RISC OS 2000 show takes place. This promises to be an outstanding show and will take place at the prestigous Queen's stand, Epsom racecourse. The show will present an opportunity to see the best of hardware and software in the RISC OS market.

It hardly seems only two years since Acorn Computers quit the scene. The mantle has been taken up by no less than three computer suppliers, bringing a new level of choice and low prices. A fourth option will be the planned Nucleus flagship machine, designed especially for the specialist graphics market.

A wide choice of software at sensible prices continues to provide RISC OS users with applications to suit all tastes, whilst continued enhancements confirm developers faith in the market. Internet access is an area where improvements are so rapid that it is difficult to keep up.

Around forty companies are expected to exhibit at the show, representing all areas of the RISC OS market. Special offers will give visitors the opportunity of upgrading at discount prices. Sponsors are RiscStation, Castle, Acorn User and Photodesk.



The RISC OS portable from Riscstation looks pretty but if you come down to the RISC OS show you can be sure of a very big surprise from Microdigital as well

Key features of the Epsom show will be announcements of new products and are expected to include:

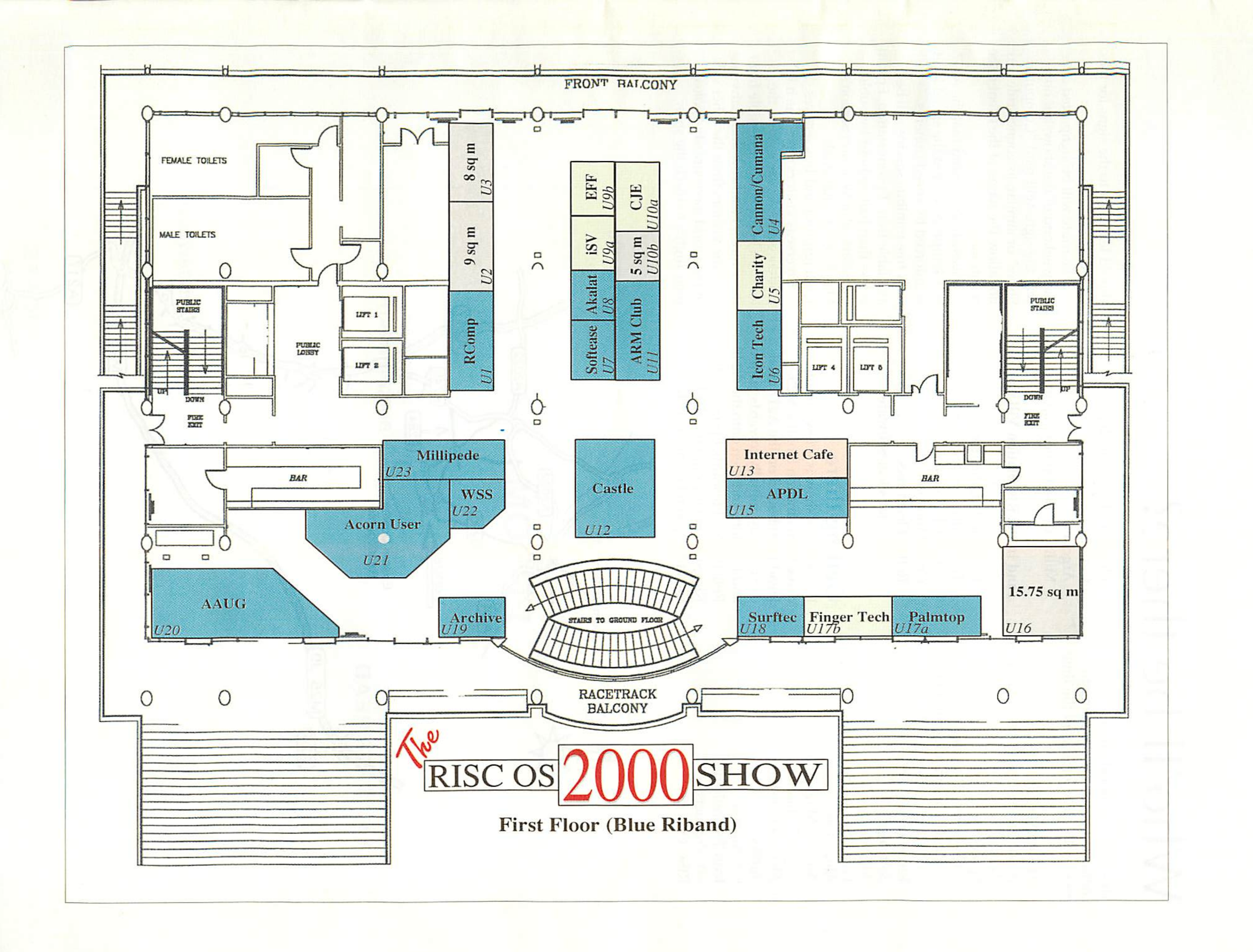
- Release of the long-awaited RISC OS portable by RiscStation. The company will also have more news on the posSum point-of-sale project.
- An internet cafe supplied by Castle will enable everyone to surf the Web, while the company are masters at concealing new releases until RISC OS shows — so expect the unexpected on their stand!
- The new company Photodesk will supply and support Spacetech graphics and presentation software, digital cameras and printer drivers.
- *Acorn User*, the leading RISC OS magazine will be there with special offers.
- Presentations by leading companies and developers will take place in the purpose-built theatre.

Tickets are only £5 and are valid for both days, also members of The ARM Club, SASAUG and ROUGOL have free admittance on Sunday.

Don't miss the RISC OS 2000 show, Epsom racecourse on 21 and 22 October. Times are 10 am until 5 pm on Saturday, 10 am until 4 pm on Sunday.

The RISC OS 2000 SHOW

Ground Floor (Mezzanine)



FRONT BALCONY
FEMALE TOILETS
MALE TOILETS
PUBLIC STAIRS
PUBLIC LOBBY
LIFT 1
LIFT 2
UP
DOWN
FIRE EXIT
8 sq m U3
9 sq m U2
RComp U1
EFF U9b
iSV U9a
Akalat U8
Softease U7
CJE U10a
5 sq m U10b
ARM Club U11
Cannon/Cumana U4
Charity U5
Icon Tech U6
LIFT 4
LIFT 6
PUBLIC STAIRS
DOWN
UP
FIRE EXIT
Millipede U23
BAR
WSS U22
Acorn User U21
Castle U12
Internet Cafe U13
APDL U15
BAR
AAUG U20
Archive U19
STAIRS TO GROUND FLOOR
Surftec U18
Finger Tech U17b
Palmtop U17a
15.75 sq m U16
RACETRACK BALCONY
The RISC OS 2000 SHOW
First Floor (Blue Riband)

Who'll be there?

This is the list of exhibitors confirmed at the time of going to press with more joining all the time:

- The ARM Club
- Association of Acorn User Groups
- Acorn User
- Spacetech
- R-Comp and R-Comp Interactive
- Cumana / Cannon Computing
- CTA Direct
- RiscStation
- Softease
- APDL
- Warm Silence Software
- Aleph One
- Archive Magazine
- Castle Technology
- Akalat Publishing
- Surftec
- CJE Micros
- Icon Technology
- iSV Products
- RISC OS Ltd
- Electronic Font Foundry
- Cerilica
- Argonet
- Millipede Electronic Graphics

...and in the RiscStation Village:

- Jonathan Duddington
- The Really Good Software Co
- Simnett Technology
- Chris Morison
- Reflex Electronics
- Serious Statistical Software

Getting there

By road, the show is a few minutes' drive from junction 8 of the M25. Head northbound on the A217 dual carriageway, initially towards Sutton and London, and then onto the A240 Reigate Road towards Epsom and Kingston. Finally onto the B284 towards Epsom Downs, which should lead you to the signs for the Grandstands.

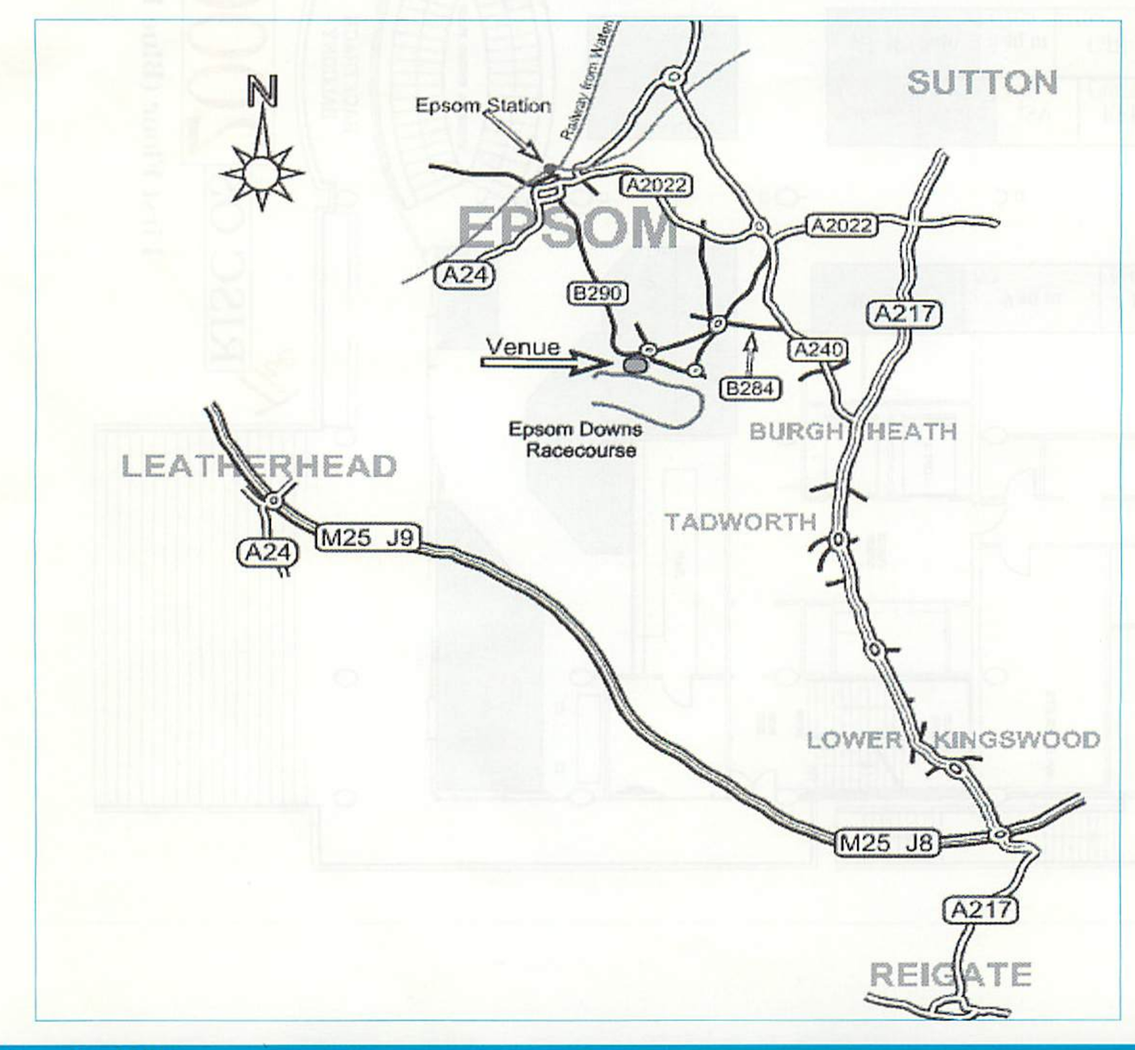
The route will be signposted over the weekend of the show, but note that the signs will read "Computer Show" or similar, as council rules do not allow the name of the event to be mentioned.

Please bear in mind that the A217 is a 40mph zone, and the speed limit is enforced by speed cameras.

A free minibus service will be available from Epsom station. Epsom is less than half an hour by public transport from Waterloo Station's Mainline, International, Underground and Bus services.

Overseas visitors were much in evidence at last year's show, the location being easily accessible from the Tunnel, Heathrow and Gatwick.

Some visitors from the other side of the world have already booked their flights to reach the show.



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mico media computer As hd plus 48 speed CD ROM drive. — £ 549.00

mico @hd computer As hd plus 56k internal modem, 6 month Argonet connection, 5 e-mail addresses, 10MB web storage. — £ 589.00

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Option	Price
32mb EDO RAM	£ 54.00
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*please note Mico will only achieve these high resolutions with a Lightning card and a n ultra-high resolution display..

The hard disc and CD ROM data transfer fiures were obtain on a randomly selected production mico using independent speed test software.

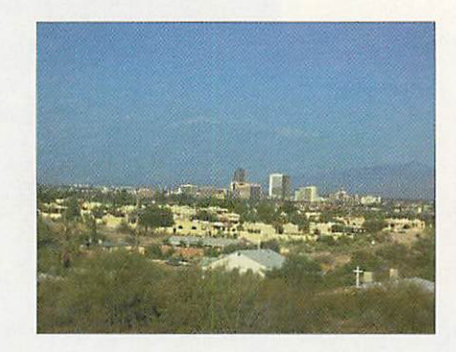
Pix packs p

Don Turnbull looks at the view through a different camera lens

Having long been wary of 'bumper' packs of anything (those 50p collections of a 1,000 postage stamps purchased X years ago were a bitter disappointment I recall), I approached the two CDs from TNP Software, *10,000 Photos'* and *10,000 Photos Volume Two*, somewhat cautiously.

With collections of this size the first considerations must be the quality of the material offered and then how easy is it to locate specific categories and view pictures of particular interest?

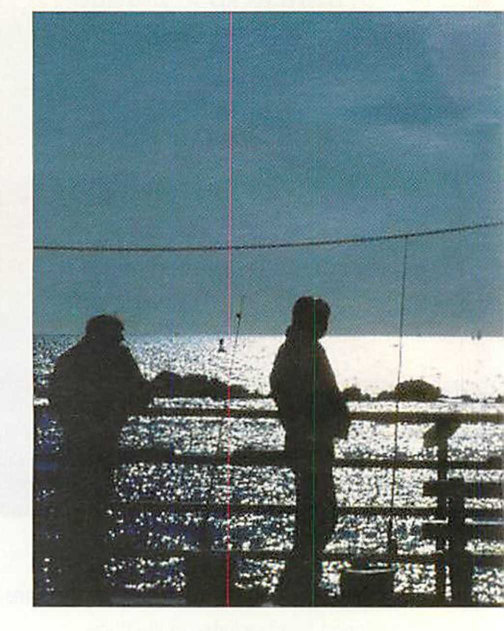
The quality of very large collections will always be variable and so it is here. Different views, angles, colours and so on, will appeal to different people and even a cursory glance at some of the hundreds of categories on these two CDs reveals many exceptional photographs in among the less sparkling offerings. Two personal



gripes: In the 'Flags' group I could only detect the good 'ol stars and stripes, and all the 'Trains' shots looked decidedly American.

That said, there is plenty here that can be used liven up material created for personal or professional use. At this price if you only used a few of the pictures it would still be money very well spent given that these are royalty-free.

Most people are unaware that high quality photographs (that we all take for granted in the magazines and leaflets that hit our doormats) cost publishers a great deal to use on

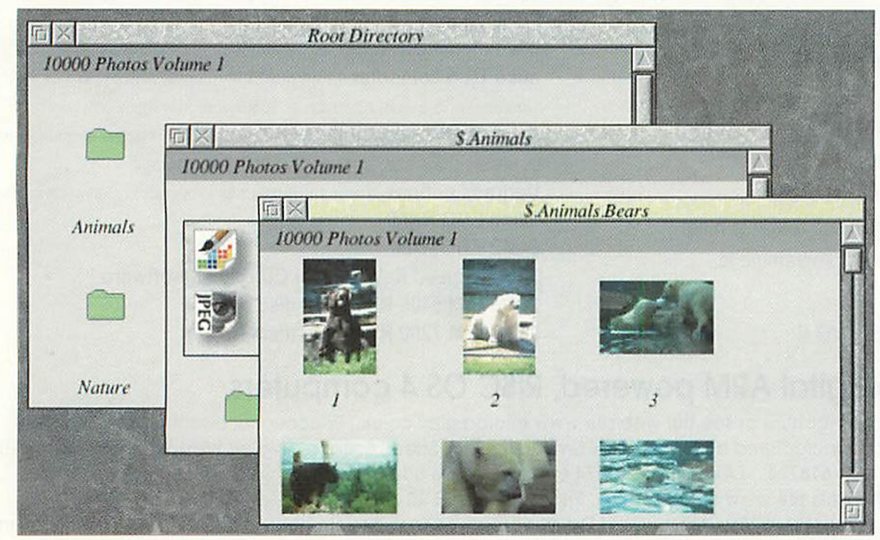


just one occasion. I have paid a fee of £250, on a client's behalf, for a photograph of the back view of a professional golfer in a bunker, and that fee only allowed it to be used once on 3,000 copies of one leaflet. Any more and the price would have rocketed.

Having said that the size of these pictures is not suitable for using as, for example, cover images on a magazine. However they make useful fillers and you can never really have too many pictures.

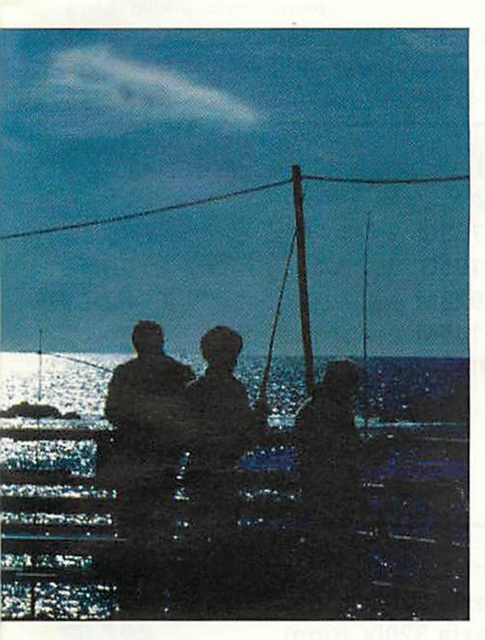
Sensibly, the guide provided with the CDs offers both a 'Motorway' and a 'Scenic' route to installation and use. The latter, for less experienced users, is very easy to follow. The application *ClipCD*, supplied on a floppy, is loaded first onto the hard drive and then launched onto the iconbar.

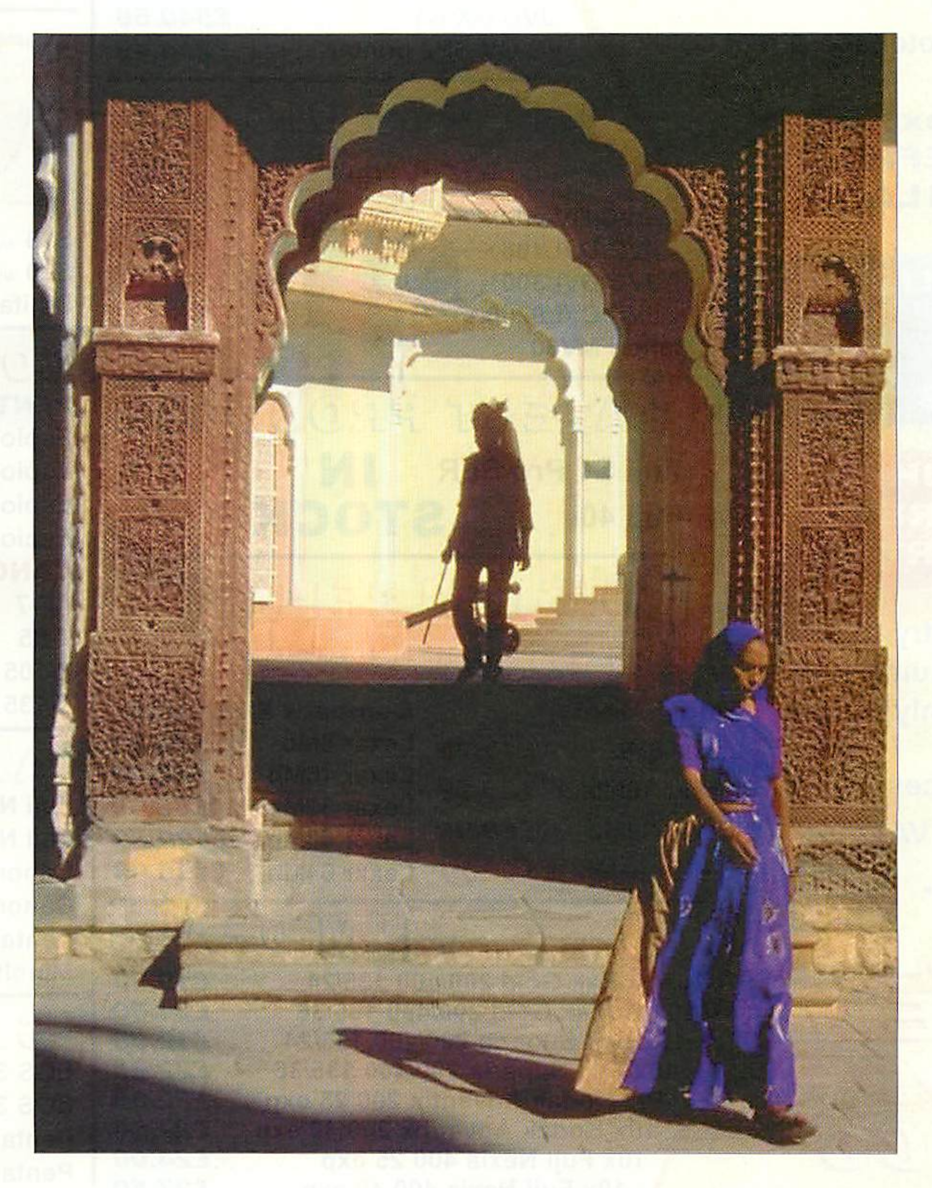
Load the CD, double-click on the *ClipCD* icon to open up the root directory and the show is underway.



The user interface is familiar enough to make it very easy to use

ack'em in





The root directory reveals the categories available (Animals, Entertainment, Misc, Nature, World and Travel on Volume 1). Click on a category, Animals for example, and you are offered sub-categories for everything from Bears to Zebras or, in the World group, Architecture to WildWest. For the record there are 47 bears and 9 zebras. In deference to the Linux section, I checked out the Penguins too, all 17 of them.

Opening a sub-category window reveals JPEGs which automatically become thumbnail pictures of the objects being viewed and you can scroll down in the usual way to view them all.

Attached very conveniently to these windows are JPEG and Sprite icons which can be dragged to another directory to transfer one or more selected pictures in either format to where it is to be saved for future use. A neat and useful tool.

Double-clicking on a thumbnail picture expands it to full size. Clicking on the full size version brings up a toolbar that enables you to scale pictures up or down to a maximum size of 1000%.

Conclusion

If you need a wide selection of photographs that you can dip into from time to time these interesting collections are good value for money, despite the possible American bias mentioned earlier.

END

Product details

Product:	10,000 Photos Volumes 1 & 2
Price:	£9.99 each or £18.99 for both (no VAT)
Supplier:	John Whittington, TNP Software 617 Fox Hollies Road, Hall Green, Birmingham B28 9DR
E-mail:	john@tnpsoft.co.uk
Web:	www.tnpsoft.co.uk

Another network

Neil Spellings reveals the other things you can do with the 'Net

When someone mentions communication over the Internet, which seems to be pretty much every day recently, what do you immediately think of? E-mail? The Web? You'd be correct in making those choices — the majority of the Internet is used for sending and receiving e-mail, and surfing the web. However, it's not always been that way and new uses for the Internet are appearing all the time.

In this series I will explore some of the less common uses of the Internet, some of which are slowly disappearing having been replaced by newer technologies, and also some of the emerging uses which are taking off as the Internet finds it way into more and more homes.

Instant messaging

One of the most common forms of instant messaging, Internet Relay Chat, or IRC as it's more commonly known, is certainly no newcomer having been around since 1988, although its mainstream use outside of UNIX gurus and system administrators didn't take place until the early 90's.

IRC is based on specific "channels" which users enter usually to discuss a specific subject or theme. Channels can be either public, where anybody on the Internet can join, or private, in which two people can carry on a private conversation.

One of the big advantages of IRC over e-mail is that it's "real time" — as soon as you type your text into the channel you are in, other users can see what you've typed almost immediately.

Sound simple? Unfortunately it's not quite as straightforward as that. IRC works by using a network of IRC servers around the globe. Due to a variety of different groups setting up their own competing networks of servers during the 90's, users are now faced with a confusing array to connect to.

To complicate matters further, none of the networks are interconnected, so a user in a channel on one network wont be able to communicate with another user in the same channel on a different network.

Some of the most popular networks are EFnet, DALnet and IRCnet. You usually configure which network you wish to connect to in the client settings or configuration window.

Figure II: Spending time with iChat and friends

IRC Clients

To connect to an IRC server you need some client software — an IRC client. There is a selection of shareware and commercial IRC clients available for RISC OS, some more actively developed than others.

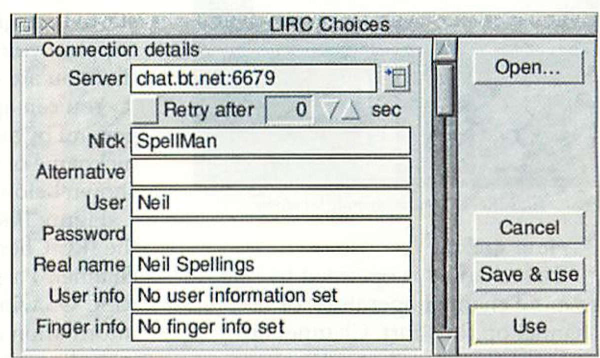


Figure I: The configuration window from LIRC

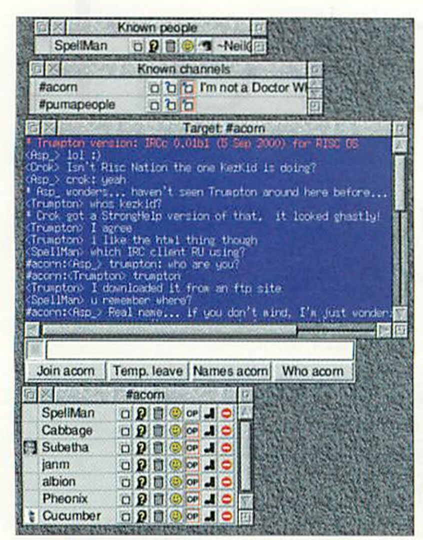
Before you can connect to a server, you need to configure the software with your e-mail address, the server which you wish to connect with, and your nickname.

Most IRC clients offer a list of possible servers and its usually best to pick one nearest to you so you get the best response time and least lag — the time it takes for the message you type at your keyboard to reach the IRC server, and be sent back to the message window to appear on your screen.

While using IRC, you will be referred to not by your real name or e-mail but a one-word nickname, such as "SpellMan" or "RiscPCUser" for example. Most IRC clients ask for you to provide two nicknames, one being a backup in the case that your first choice is already being used.

Once you have configured your settings you can then connect to your chosen channel. The IRC network is subdivided into separate channels.

To enter a channel you have to join it. Type "/join #channel" into the command window — so if for example you wanted to join the Acorn channel, you would type:


Figure III: LIRC gives you separate windows

/join #acorn

Each channel is operated by one or more channel operators, or channel op for short. Channel ops have the final word on all matters within the channel: who can enter the channel, who can talk, and so on. Channel ops can also throw people out of a channel (if they are abusive for example) so it usually pays to be nice to the channel ops.

A channel can either be private, in which only specified users can join and the conversation is kept private from the rest of the IRC community; or public, in which anybody can join the channel (unless specifically banned by the channel op) and take part in the discussion. A popular public channel with RISC OS users is #acorn, which is a good place to start if you are new to IRC.

How to chat

Commands and messages are typed in the same place. Commands begin with the character / so they can be differentiated from your message.

Some useful commands to get you started are given below. In these, suppose your nick is "yournick", and that you are on the channel #acorn.

You can apply these examples in general by substituting the relevant nickname or channel names as shown below.

Figure II shows an example from the IRC Client *iChat* after joining a channel. This client uses a single RISC OS window to contain all the information about the channel including all channel members and the text output.

A different client, *LIRC* uses a series of windows to display the information as shown in Figure III.

Having briefly looked at all of the available RISC OS IRC clients, my personal favourite was *LIRC* as it offered the most features and I like the separate windows for your favourite channels and channel members however everyone's tastes differ and you may prefer the layout of one of the other clients.

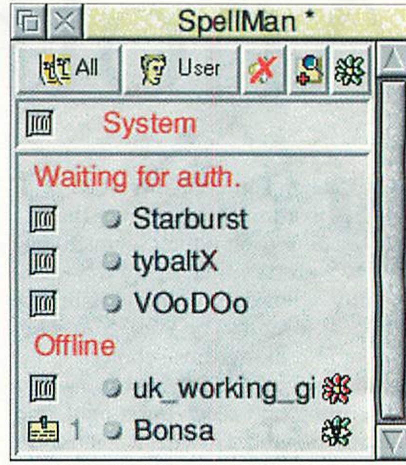


Figure IV: Know your friends on ICQ

Although IRC has been one of the most popular chat systems on the Internet, its popularity is being challenged by another Instant Messenger which we will take a look at next.

Where are you?

Formed in 1996, ICQ (standing for "I Seek You") is one of the fastest growing instant messaging systems on the Internet having over 50 million registered users by December '99.

ICQ works slightly differently to IRC in that a central ICQ server maintains a list of personal UINs (Universal Internet Number) which you get allocated when you sign up on the ICQ network.

As with IRC, you need a piece of client software to connect to the ICQ server. Thanks to Angelo Melis, we now have a RISC OS version which, although not as feature-rich as the Windows version, allows RISC OS users to connect and chat with any other ICQ user worldwide.

Before you can begin chatting, you need to sign up onto the ICQ network and get assigned your UIN. The first time you run *ICQ* it asks you if you wish to sign up for a new UIN, or you already have one you wish to use.

If you choose New UIN you are prompted for a user id, password and Nickname and then assigned your unique UIN — make a note of

What you type	What happens
/join #coolness	You join the channel #coolness
/who #coolness	Gives some info on users in the channel. If a user is prefixed by @ they are a channel op
hello everyone	Everyone on #acorn sees "<yournick> hello everyone"
/me is very happy today	Everyone on #acorn sees "yournick is very happy today"
/leave #acorn	You leave the channel
/whois RiscPCMan	You get some info about RiscPCMan or whatever nickname you entered.
/whois yournick	This is some info others see about you
/nick newnick	Changes your nick to "newnick"
/msg RiscPCMan hi there.	Only RiscPCMan sees your message (you don't need to be on the same channel for this to work).
/ping #acorn	Gives information on the delay (round-trip) between you and everybody on #acorn
/ping RiscPCMan	Gives information on the delay (round-trip) between you and just RiscPCMan

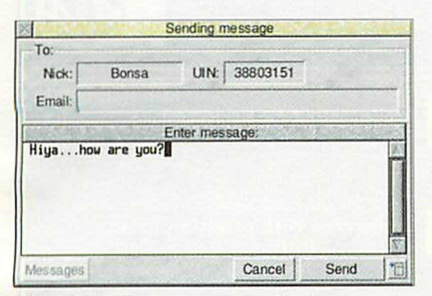


Figure V: Sending a message to a friend

this as you will need this to give out to other ICQ users so they can add you to their friend list.

ICQ allows you to maintain your own list of "friends" and then informs you when they come online. You can then send them messages, and they reply accordingly. Figure IV shows the *ICQ* window with a typical friends list. You can also see that there is a waiting message from user "Bonsa"

To reply to the message, just double-click on the user, and type the message into the sending message window, as show in Figure V, then click Send. The message will then be displayed as an envelope next to your nickname on their friends list, as in Figure IV.

If you know your friend's UIN, you can easily add them to your contact list, but if you don't *ICQ* provides a search facility so you can



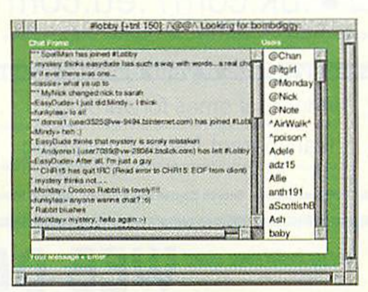
Figure VI: Find out who you can talk to on ICQ

search the ICQ user database for their Nickname or e-mail address as shown in Figure VI.

Note that you can't just add anyone at random — you can configure your ICQ UIN to always ask for authorisation when people add you to their friends list. This ensures that only people you know and have authorised have you on their lists and can tell when you come online.

The ICQ network itself support other features such as sending files, voice messages and pictures, and direct chat sessions, however support for these features have not yet appeared in the RISC OS *ICQ* client.

ICQ isn't the only instant messenger of this type — AOL have



their own network and software, as do Yahoo! although no RISC OS client exists for either of these networks. The software works in much the same way — you sign up on their central server, and friends can message you.

Alternatively many ISPs offer web-based chat from their Web sites. These operate in a similar way to IRC, but without having to have a locally installed IRC client. Most use a Java-based chat client which is launched via your Web browser. On RISC OS systems, this requires both *Java* and a browser which support Java plug-ins.

Next month

This concludes our look at the world of Internet messaging. Next time I'll be looking at some more alternative uses of the Internet such as Gopher, Usenet, FTP, Telnet and MUDs.

ICQ Resources

Acorn ICQ page
www.vigay.com/riscos/icq/

Mirablis — home of ICQ
www.icq.com

RISC OS IRC Clients

LIRC v1.81 Shareware
www.riscos.mine.nu/files

iChat v0.69 Shareware
www.klmc.demon.co.uk

iXRC v1.41 Commercial (£14.99)
www.quadworks.co.uk

ircClient v0.43 Shareware
www.willothewisp.demon.co.uk/IRClient/

IRC Help & Info
www.irchelp.org

Web chat resources

www.lineone.net
www.virgin.net
www.yahoo.co.uk

Useful chat jargon and etiquette

• Emoticons

:-) is a smiley face, tilt your head to the left to see it.

Likewise, :-(is a frown. ;-) is a wink. :~~(is crying, while :-P is someone sticking their tongue out. :-P ~~ is drooling. There are dozens of possible variations — use your imagination to create whatever emotion you wish to express.

• Here are some common acronyms used when chatting online:

ATM	at the moment
BBIAF	be back in a flash
BBL	be back later
BRB	be right back
BTW	by the way
FWIW	for what it's worth
IMHO	in my humble opinion
IMO	in my opinion
IIRC	if I recall/remember correctly
IYSWIM	if you see what I mean
J/K	just kidding
LOL	laughing out loud
NP	no problem
RTFM	read the ****ing manual
ROTFL	rolling on the floor laughing
TTFN	ta ta for now
WB	welcome back
YMMV	your mileage may vary

• Typing in all caps, LIKE THIS, is considered "shouting" and should be avoided (unless you wish to emphasise something BY SHOUTING).

• If you are leaving your keyboard for a while, change your status to "away" if you are in ICQ or IRC or if you are chatting one-to-one, type "brb" so the other party doesn't think you are deliberately ignoring them.

The flower of imagination

Teri Paul takes a look at a new RISC OS-based company that plays games

Fleur Designs are a company in Trafford, south of Manchester, specialising in an odd mix of the old and new. They produce bespoke (designer) craft products and provide bespoke information services. Somewhere from within this odd mix has surfaced the concept of board games with on-line support and even the concept of design your own level.

Fleur Designs (**www.cartmell.demon.co.uk**) is a partnership between Kathy Cartmell and her father John with other members of their family chipping in with ideas and being inveigled into testing, commenting and even adding their design skills to the recipe. Some of you will know Kathy as the original Project Manager for the RiscStation and both Kathy and John from the Manchester Acorn User Group.

Between their family they had two A4000s, two Risc PCs, an A7000+ and (from July 2000) a RiscStation. It was obvious from the start that RISC OS computers would have a part to play in their business.

Fleur Design's first board game was simply a copy of Byzantine Chess from about 1000 years ago. Although it uses the then standard rules of chess, Byzantine Chess was played on a circular board. John realised from the start that an up-to-date version of the game would need to follow, as far as possible, the current rules of chess and include a chequerboard pattern — the Byzantine chess board has lines but no filled in areas. Deciding what to produce was easy — actually doing it much harder! As John says,



"I struggled for some months to produce the appropriate shapes for the board design. Producing lines, like the original Byzantine Chess was easy but filling in alternating areas wasn't. I tried to get the right set of shapes using a whole range of programs from *Draw* to *Apollonius* to *ArtWorks* and back again through *DrawWorks Millennium*; even Cerilica couldn't help.

"The project had trickled on (and off) over a couple of months then I remembered Rosemary Miskin's free program — *DrawLots*. We had used another of Rosemary's programs, *DrawRot*, to produce the FleurDesigns logo and Kathy had even identified Rosemary's programs for inclusion with the RiscStation computers.

"Using *DrawLots* I could produce a sector of a circle of a given radius and angle. Overlapping a number of sectors of angle 22.5 degrees and filling in alternate sectors produced the effect I was after. Loading it into ArtWorks I could clone and rotate to produce the final product.

"It wasn't entirely satisfactory as the shapes were overlapping and more time-consuming to display on screen than was desirable. Only later, after I had completed the design of eight boards, did I discover the 'ring segments' option from the same *DrawLots* program that allowed me to produce the same shapes without any wasteful overlapping.

"I produced my chess board using a similar manufacturing technique that I'd earlier used to produce albums and memorabilia books. Using the maximum size available for printing on my Epson Stylus 740 (about 195mm + 5mm edge) produced a board too small for realistic play so I made it in four pieces. This was serendipitously fortunate as 195mm fitted in well with the card I had available for producing the albums.

"The printed card is covered with a protective laminate and attached to a card base which in turn is glued to a soft fabric covered base. The end result is four small boards fitting together as an attractive playing area and stacking compactly.

"Having spent so much time producing a board for myself it seemed only fair and reasonable to make it available to the whole world and so Krikos was born. The game was named Krikos after an early Greek name for circle, which seemed appropriate for a circular chess game which originated as Byzantine Chess.

"As I had developed Krikos I had though of a number of possible extensions to the game and customers had similar ideas. 'Can't I have Krikos with ...?' 'Why does it have to

be green?' 'Do you only have one game?' As a company believing in bespoke products this was a clear challenge.

"We now have three versions of Krikos 'off the shelf'. Krikos Original is the standard, brought up-to-date, Byzantine Chess board and this is the version of the board to use if you want to take part in the Circular Chess Championship. Krikos Theta is the same board, but with a band of squares joining the two halves of the board and Krikos Krikos is effectively the same as the original but — being composed solely of unconnected circles — requires a certain sort of mind to appreciate the moves available!"

Having tasted a minor degree of success with three versions of Krikos Kathy and John proceeded to add more games to their list. Most of the new games used a single board the same size as one of the Krikos boards.

"All the boards are the same size so that very nice customers who buy more than one game can stack them all together neatly on their coffee table ready to play."

At present their games are:

- Maldon, a modern version of Hnefatafl;
- Five, a tactical version of Pachisi (from which Ludo is also derived);
- FourSquare, a multiple board tactical game;
- Stopp, a no-dice race game; and
- t'other, which defies description but which John is nominating as the alternative sport for the Wakefield vs Manchester User Group contest that has been mooted — someone at Wakefield keeps suggesting paint ball fights between the two User Groups; a suggestion that John has so-far managed to side-track.

All the games come with an automatic on-line support. John explains:

"I was very enthusiastic about the support that people like Jon Duddington, David Pilling and others gave to their RISC OS software. It meant that little problems could easily be solved. It seemed to me that with new games there would be similar problems — interpretation of rules and difficulties the author hadn't considered; so every game that we sell comes complete with a promise of e-mail support and a mailing list pooling comments and ideas from all participating users.

DIY levels?

It seems that *FourSquare* can be played on one board — but adding, moving or removing a board is part of the game. Fleur Designs produce six different boards and the game can be played on any mix of any number of boards. Fleur Designs are encouraging players to send in their ideas for add-on boards and offer to produce a free board for anyone sending in a commercially viable idea — noting that in this world of bespoke board games 'commercially viable' can be dozens rather than thousands.

Even if the idea is only ever going to appeal to one group of players Fleur Designs will still produce a board, but at a somewhat higher cost

Producing a logo using Draw Rotate

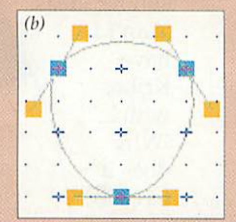
Kathy had signed her name with a flower ever since school and used the flower symbol as a logo whenever she sold her craft products. When we came to need a repeatable logo we turned to *Draw* and Rosemary Miskin's *DrawRot* (Draw Rotate) to produce our design.

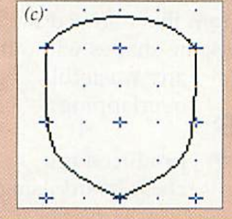
Using *Draw* with the grid shown and locked I produced a closed, curved path with three points (a); then selected the object to edit it, Control+E (b). Using Adjust I moved the control lower points (c) — those on the right aren't visible because they overlap one another — and clicked Select to reveal this shape; Increasing the line width (d); and saving the object straight onto the *DrawRot* icon on the iconbar produce the DrawRotate window (e).

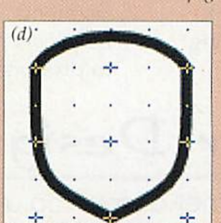
By changing the rotation, centre of rotation and number of repeats and so, on it becomes possible

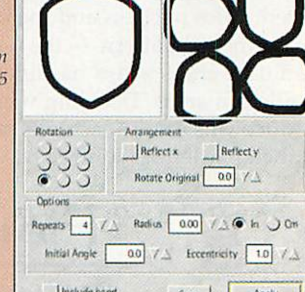
Continued on page 55

(a)


(b)


(c)


(d)


(e)

"This penguin is deceased"

BeOpen.com, the worldwide leader in Python technologies, announced today the launch of its PythonLabs Professional Services Program. The Program offers custom application development, technical support and Python technology development for dotcoms and major enterprises.

Companies with present or future plans for Python or in need of rapid application development now have access to Python's foremost technologists at PythonLabs under the direction of Guido van Rossum, the creator of Python. Corporations can contract BeOpen PythonLabs on a project basis and can also sponsor development of the Python language.

"Python is setting a new standard for creating advanced Internet-centric applications and providing leading firms with improved time-to-market, reduced maintenance costs and greater leverage than Java, Perl and C++," noted Mark Kaleem, CEO of BeOpen.com. "Our PythonLabs professional services bring the business advantages of Python, today enjoyed by such firms as Yahoo! Red Hat, Ultraseek (now Inktomi), Microsoft Network eShop, Google and Loudcloud, to a broad audience on an outsourced basis."

Python fills the need for rapid, multi-platform application development and advanced feature sets that customers are demanding today. Guido van Rossum explains, "The complexity of developing distributed server, embedded and even desktop applications continues to grow rapidly and traditional solutions are simply adding to this complexity. Python lets us focus on the business problem at hand and generate flexible, long-lasting solutions that excite users and are ready in much less time than traditional projects. This is how mission-critical systems should be built."

Bruce Eckel, a leading consultant and author of "Thinking in Java" and "Thinking in C++", echoes these sentiments: "Python is the most productive language I've ever used. I can program 10 times faster than any of the other tools I have used. It's free, it's object-oriented, it adapts to everything, it runs on everything. It's the first tool I reach for when I need to solve a problem."

Python is an open source, object-oriented application development language. Python is widely respected for its easy readability, stability, and portability across a wide range of platforms. Python has proven to be up to five times more efficient than traditional languages for demanding application development and maintenance. Yahoo!, Google, Microsoft, and Red Hat are among the leading firms with major applications built on the Python platform.

Clustered penguins

Linux NetworX, Inc., a provider of large-scale clustered computer solutions for Internet, industry and research fields, announced today that Rockwell Science Center will be using Linux NetworX clustering technology for simulating aerodynamic fluid flow aerospace systems.

Rockwell Science Center's Computational Fluid Dynamics (CFD) department will use the cluster system to develop fluid-simulation software tools that enable design evaluation, performance analysis, and trouble shooting in examining how the flow of gases and liquids impact space vehicles and military aircraft.

"Compatibility and price-performance are the main reasons we purchased the Linux NetworX system," said S.V. Ramakrishnan, manager of CFD at Rockwell Science Center. "We wanted to ensure our software runs on clusters that are compatible with those used by our customers."

Linux NetworX (**www.linuxnetworx.com**) brings its powerful cluster technology to those demanding high availability and high performance systems. With the use of cluster computer technology, a method of linking multiple computers through high-speed networks to form a single and more powerful system, Linux NetworX provides solutions for companies with high-computing needs, including research, industry, government, ISPs, ASPs and other technological fields.

To date, the company has built some of the largest cluster systems in the world and has developed unique hardware and versatile software to facilitate overall system management



Frozen WAP



The OpenSource based polar news site, extended its lead as the premier polar information site by announcing today the expansion of it WAP-based services. The new feature enables users to send e-mails via their WAP based phones.

Now besides being able to view your Antarctic and polar-related news on the move via your phone, users will be able to send e-mail via a WAP interface. In the coming weeks 70Souths plans to release several other features that are currently in trials.

70South was formed in 1999 as the main source for Antarcticles. 70South provides daily news, and information on Antarctica and other polar related issues with several informational resources and an extensive links section. 70South recently won "site of the week" by an educational site that provides services to the Belgian Education department.

70South is based entirely on open source software like Linux, Zope, Squishdot and others.

www.70south.com

Traffic census

Candela Technologies' LANforge is an ethernet traffic generation and testing suite that utilises a slightly modified RedHat Linux 6.2 installation with custom software to provide a realistic and cost-effective testing platform targeted at DSL and Cable-Modem providers.

Candela Technologies (**www.candelatech.com**) today announced the public introduction of its bulk Ethernet test and traffic generation equipment targeted at testing Ethernet networking devices with large port counts.

The LANforge E500 provides a unified management, traffic generation and reporting application which allows testing and verification labs to quickly and easily simulate real world customer traffic.

The LANforge E500 provides an easily scripted command line interface as well as an advanced graphical user interface to set up test and traffic simulations using standards compliant Linux networking protocols including Layer 2 (Raw Ethernet), UDP/IP, and TCP/IP.



Strategic



Loki Software, Inc., the leading publisher of commercial games for the Linux operating system, has announced an agreement with Timegate Studios, to bring their *Kohan: Immortal Sovereigns* to Linux. Kohan will be the first of the immensely-popular real-time strategy gaming genre to be commercially available for Linux.

"This is a tremendous coup for Linux games," said Scott Draeker, president of Loki Software. "The Linux version of this masterpiece will be released near-simultaneously with the Windows version in Q1 2001."

A real-time fantasy war game for up to 8 players, Kohan is visually stunning and provides a rich gaming experience. Set in the mystical world of Khaldun, players must use strategy, tactics, and resource management to create a successful kingdom and to create and deploy their military forces.

Special features of this upcoming title include the consideration of terrain, formation and company efficiency in combat and movement. The regimental command structure allows players to focus on strategy and tactics without micro-management.

A rich fantasy setting with a detailed background and many unique races, places and magic guarantee excellent replay value. Players may also use a fully-functional editor with a random map generator to customize new scenarios, campaigns, and deathmatch maps.

Kohan: Immortal Sovereigns is a real-time fantasy wargame for up to eight players. Set in the mystical world of Khaldun, players take on the roll of a Kohan, a race of immortals. They were once the ruling power of the world, but have had their culture and society destroyed by a series of massive cataclysms. Their immortal nature prevents them from a eternal death though, and they have begun to resurface.

Reborn and reawakened in a strange new world, unlike the one they once held dominion over. The player must come to grips with their lost glory, their current hardship, and their imminent destiny. It is the goal of the players to solve the riddle of their race‹s destruction and return them to their former glory.

The player of Kohan will be required to use a blend of strategy, tactics, and resource management to create a successful kingdom. Most of the emphasis of the game will be on managing the military force that will bring victory to the player if constructed and deployed correctly.

Exploration of the world and learning the story of the Kohan race will also take prominence. The player will use Kohan Heroes to search out the clues of their





penguins

ancient decline and learn from the past to prepare for the future.

The story so far

Your life up until now has been nothing but a flickering shadow, a fleeting memory that washed away the moment you awakened for the first time. You are not the man you thought you were. This moment came when you stumbled across a curious amulet hidden among forgotten family heirlooms.

It was squirreled away within a secret compartment at the bottom of your grandfather's curio. It was marvellous, a golden disk embedded with clear gems that sparkled like the ocean at sunrise. It begged to be held, to be touched. Once in your hands it felt warm, as if it had been sitting out in the sun. This did not strike you as odd though, for some reason it made you smile.

The amulet was attached to a silver chain, obviously meant to be worn about the neck. As you stepped away from the curio, you slipped the amulet over your head. There was a brilliant flash of light and the sound of a thousand rivers rushing over you. The next moment you were no longer who you once were.

You were a different man, one with memories of eons past, flitting about your skull like drunken butterflies. The harder you tried to focus on one, the faster they danced out of reach. Only one truly clear thought came to mind. You have a destiny to fulfill. The world is soon to be destroyed once more, as it has been, again and again for thousands of years. This did not frighten you. You now know you are Kohan, and you are immortal.



Special game features

- Company-based military command and combat with attributes such as Fatigue, Morale, Zones of Supply, Zones of Control, and Visual Range. KIS takes terrain, formation, and company efficiency into consideration in combat and movement;
- Regimental command structure allows for advanced grouping of companies and advanced combat techniques all by controlling a single entity. No more micro-management;
- Innovative company creation screen that allows the player to create companies from the ground up, mixing and matching up to 50 different units together to create literally thousands of unique combinations. Each combination not only looks different, but will function differently as well;
- Companies can be controlled by putting them into one of several formations. These formations do more than adjust the physical position of its units. The formation also changes company attributes such as Attack Value, Visual Range, Zone of Control, Movement Rate and can even affect Morale;
- Advanced quest/trigger system that allows for hundreds of interesting quests that are used to advance technology, learn the history of the Kohan, and aid in establishing a successful empire;
- Hi-res (1024x768), 16-bit colour graphics and selective anti-aliasing of units, buildings and spell effects. KIS boasts a lush landscape while retaining the strategic scope of the game;
- An exciting and engaging fantasy setting with a detailed background and many unique races, places, and magic. Scores of interesting spells, magic artifacts, and fantastic creatures make the world of Khaldun come alive;
- Fully functional editor with random map generator that allows players to custom make their own campaigns, single scenarios, deathmatch maps and the like. Provides tremendous replay value.



Give 'em an inch

Alan Forsyth on some of the latest gizmos

A little over five years ago two IBM designers Thomas Albrecht and Timothy Reiley started work on a motor-research project, the one thing they weren't planning to create was a new disc form factor around 1in discs. The best laid plans of mice and men — despite the fact industry hasn't embraced a smaller disc-drive format in more than a decade. By last month digital-camera MP3 player and hand-held computer manufacturers were queuing up to endorse the fruits of that research program: A tiny 1in disc drive made by IBM's Storage System Division.

The overwhelming show of support for a single-source product surprised its developers at IBM's Almaden research lab almost as much as engineers who marvel at a 340Mb disc drive that's about the size of a matchbook.

Many vendors have tried to create a smaller form factor, but the 2.5in drive was the last successful move to smaller disc drives. The 1.8in market saw the demise of several start-ups, and Hewlett-Packard's attempt to make a 1.3in drive, the Kitty Hawk, nose-dived.

"The Kitty hawk was a spectacular failure," Albrecht said. "HP left the disc-drive market completely after it failed. The fact that it went down in flames made everyone at IBM cautious.

"This started as a funded research project to look at micro mechanics since, with smaller bit sizes and finer track widths, sensitivity to movement and vibration is more critical," said Timothy Reiley, research staff member in IBM's Research Division.

"Our view is that MEMS [micro-electromechanical-system] devices will be a key part of a disc drive in the future, so we were looking at micro motors on the head for finer positioning. As we went along, we found it was more suited to a miniaturized drive than to use micro motors in larger drives."

The result a 1.6 x 1.4 drive so small that marketdroids took the unusual tack of calling it the Microdrive, (though not related to Sir Clive Sinclair's Spectrum add-on - how soon the memory fades). Once the program's goal shifted to creating a drive tiny enough to fit into cameras and other small products, the challenges were daunting.

It was tough to develop motors and head assemblies small enough to fit in a drive standing only 0.19 inches tall, and getting all the necessary ICs into that little package confounded even those who drew sketches.

"One of the breakthroughs came when we could see the electronics people were going to succeed in fitting all the chips on that little card," said Thomas Albrecht.

"Our original prototype only allowed components on one side, and a clever engineer came up with a way to use direct chip attach and get components on both sides. Before this, our drawings always showed components on one side and the leftovers somehow floating in air."

While electronics played an important role in the development, the mechanical aspects of the drive were also crucial. After all, disc drives are electromechanical devices with platters that must spin reliably at precise speeds for thousands of hours with a minimum of vibration.

"Bearings were important in defining the geometries of this thing, since bearings have not evolved the way motors have," Reiley said. "Ball bearings probably drove more of the mechanical design than anything else."

The drive's compact form factor made it tough to develop prototypes. But with the proper motivation, the engineers found they could work in that small space.

"The night before one of the top execs was coming for his semi-annual visit to Almaden, Tom and I were up gluing things together. A lot of microscopic wiring got done overnight," Reiley said. "Getting it running for him was fortuitous.

"There wasn't a lot of overt opposition to our project, but there was much reluctance for any help for it," he said. "One reason is that the 2.5in drives were very successful and to divert research to this new thing was distracting."

Working with the standards body that was creating a new version of the widely used Compact Flash format was another challenge. The drive mechanics wouldn't fit in the low profile, first-generation specification, so IBM and others who wanted to put modems and other products in the form factor were pushing for a larger size.

While IBM had some partners,



Thomas Albrecht (left) and Timothy Reiley with their 1in Drive

formidable forces on the other side were pushing specifications that didn't meet the needs of the microdrive, which required a taller package.

"The effort to standardize the form factor was an exciting process. It was not an automatic success," Albrecht said. "Microsoft had worked with a team of companies to develop what they needed, growing the form factor in two of the three dimensions. They thought they had the votes to pass their proposal, so they were in no mood to talk to us about getting a shape that worked for a disc drive.

"We really had to work to show people our approach was smarter," Albrecht recalled, "and it was very necessary to have a secret ballot, which is rare in these committees, because it's hard for companies to publicly oppose Microsoft."

However, Microsoft was among those who endorsed the drive in a recent statement announcing the Microdrive's shipment. Others were camera makers Eastman Kodak, Minolta and Nikon, along with Compaq, Casio and an MP3 specialist, Diamond Multimedia RioPort Division.

That bevy of endorsements is a far cry from 1996, when Albrecht and Reiley turned to marketing and took the first prototype to Comdex. They expected camera people, who had to deal with small capacities of expensive flash, to get excited over the 170 to 340 Mbytes that the tiny drive provided. That was a mistake.

"The most common reaction seemed to be that the camera people had worked hard to build an architecture based on very little storage space," Albrecht said. "After they had struggled to work with 4 Mbytes, they were not necessarily happy to get 340. Many were not even prepared to discuss it."

While there was little initial interest from those camera makers, a research partner at IBM's Fujisawa, Japan, facility got very interested. An amateur photographer, he became a missionary for the drives, promoting it to camera makers and others in Japan who shared the country's zeal for gadgetry. Much of the development was done in Fujisawa.

"I travelled very extensively to Japan for three years," Albrecht said. "For a while either Tom or I was going every other month. E-mail was also very convenient; it bridges the time gap. You finish up your work, send several e-mails and with any luck they're all answered by the morning."

He added that there are definite cultural differences between the Japanese and American engineers. "In Japan, e-mail is used for less; it's something that's not natural to them. It's more common for them to meet face to face. They didn't even have voicemail until last year."

Now that the drive is starting to ship, the researchers are glad they talked their marketing counterparts into another deviation from IBM's usual development process. Drive makers typically don't formally unveil a drive until it's ready to ship. But IBM went public last year, one of the longest pre-releases in disc-drive history.

"For IBM Disc Drives, this was an uncharacteristically early announcement. We normally would never announce a product a year in advance of shipments," Albrecht said. "Everyone agreed that it was necessary. People needed to design Type II slots, and there were also questions whether we were serious about this."

END

We shall have music

Another new MP3 player, this time from the Creative Labs stable: The D.A.P Jukebox is a new player in Creative's new line of PDE (Personal Digital Entertainment) Internet Solutions. The Range covers PDE Internet devices, applications and services.

D.A.P. Jukebox offers support for MP3 and WAV formats and comes with reprogrammable firmware that supports additional digital audio formats and software extensions. As with all MP3 players you can record from your personal CDs, or download from the Internet a wide range of content. What makes it unusual is the 6 Gb hard drive allowing you to store over 100 hours of CD-quality audio — approximately 150 albums.

D.A.P. Jukebox also features time-scaling allowing you to speed up or slow down the playback without the makers claim any loss in audio content, making it ideal for digital audio books, educational or controlled music listening. It is also equipped with a USB interface offering fast digital transfer rates, easy connectivity and set-up.

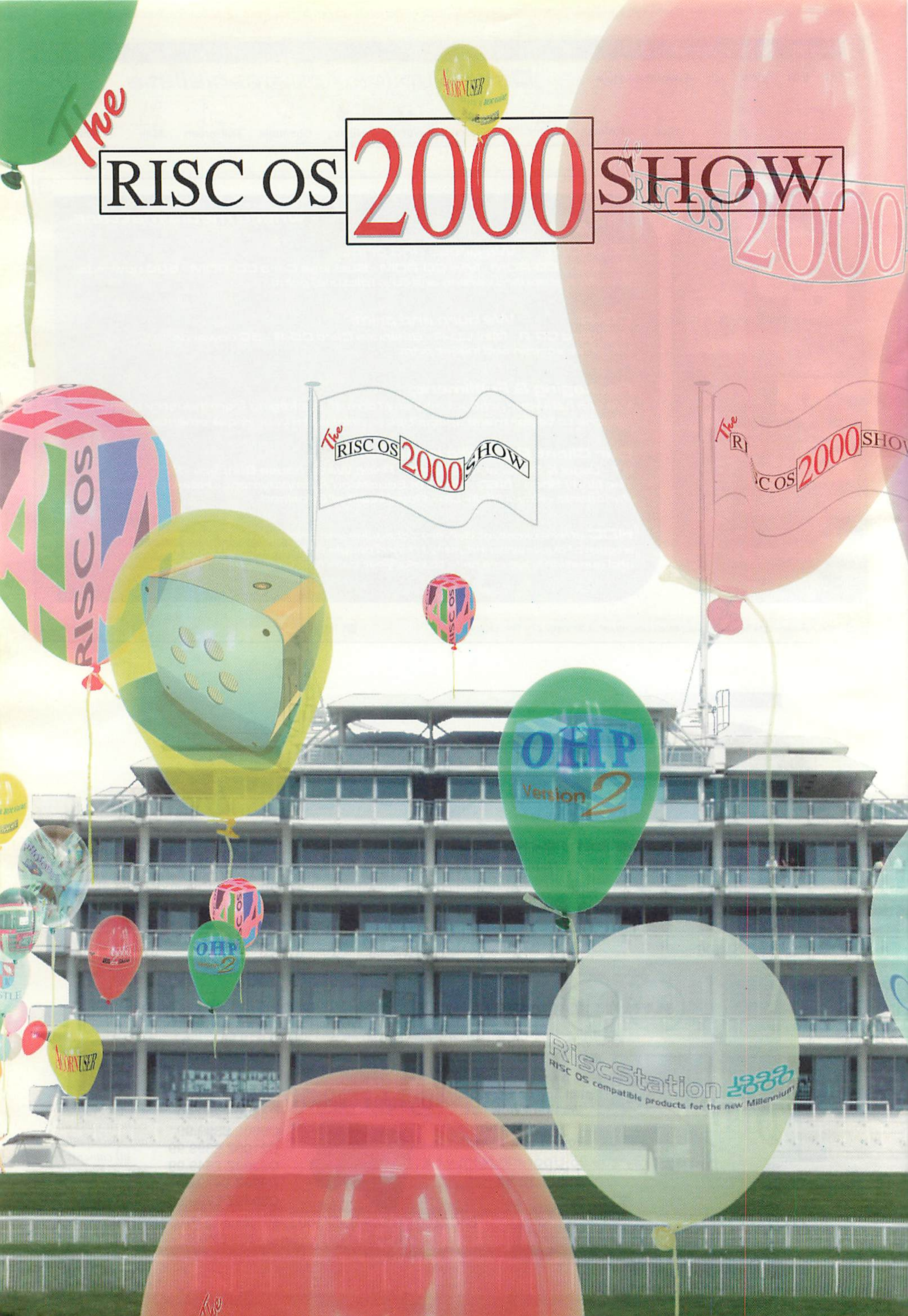


Alas it is only compatible with Windows and Mac OS at the moment though wider compliance would be possible with compatible software. D.A.P. Jukebox also supports four-channel surroundsound that gives an enhanced special quality.

Creative also offer extensive online PDE device support, for upgrades such as new DSP algorithms, security features and auto-play list generators. D.A.P. Jukebox also lets you add Environmental Audio™ effects to your audio contents for an enhanced listening experience.

The major plus to this unit also raises it's main criticism: The inclusion of a 6Gb hard drive allows for more storage capacity than conventional flash memory would. It also means flat batteries won't delete the MP3 files stored, though the mechanical nature of the drive leads to a shortening of the batteries life, down to 2 hours continuous usage compared to other players 12 hour plus lifespan

The D.A.P Jukebox is due to ship in the US in September no release price available.



The RISC OS 2000 SHOW
ACORN USER
RISC OS
OHP Version 2
RiscStation 1999 2000
RISC OS compatible products for the new Millennium


organised by...
The ARM Club
with...
ROUGOL
RISC OS User Group of London
AAUG
SASAUG
Surrey and Sussex Acorn User Group
sponsored by...
ACORNUSER
PHOTODESK LTD
CASTLE
RiscStation 1999 2000
RISC OS compatible products for the new Millennium
SASAUG & ROUGOL
N
Epsom Station
Railway from Waterloo
EPSOM
A2022
A2022
A24
B290
A217
Venue
A240
B284
Epsom Downs Racecourse
BURGH HEATH
Beware - the A217 is a dual carriageway with a 40mph speed limit and there are two separate police speed cameras located along this stretch of road.
TADWORTH
M25 J9
A24
LOWER KINGSWOOD
M25 J8
A217
Road:
Exit at Junction 8 and head northbound on the A217 Brighton Road dual carriageway - signposted A217 Sutton & London.
Continue northbound through Lower Kingswood and straight ahead at the next two roundabouts - still signposted A217 Sutton and London.
After 2.8 miles from the M25 take the third exit (straight ahead-ish) at the traffic light controlled Tadworth roundabout - still signposted A217 Sutton and London.
After 1.0 mile turn left at the traffic lights at Burgh Heath on to Reigate Road (immediately before the Shell petrol station) - signposted A240 Epsom and Kingston
Follow this road across a set of traffic lights (after which the road starts going downhill) and after 0.9 mile turn left on to Yew Tree Bottom Road - signposted B284 Epsom Downs.
After 0.5 mile take the second exit at the roundabout on to Grandstand Road - signposted Grandstand and Ashtead.
After a further 0.6 mile the Queens Stand is located straight ahead adjacent to another roundabout - car parking will be signposted and marshalled.
By Rail:
Visitors Travelling by Rail must go to the main Epsom Station where a free shuttle bus will take you to the Show. Please visit our website for updated rail travel details. http://www.armclub.org.uk/riscos2000/
*Please note that Epsom Downs and Tattenham Corner stations will not be served by the shuttle bus.
OHP
Sat 21st October 10.00 to 17.00
Sun 22nd October 10.00 to 16.00
Queen's Stand, Epsom Downs Racecourse Surrey
(Close to M25, Nearest BR: Tattenham Corner)
Shuttle bus to/from Epsom Station
Entrance £4 Advance, £5 at the Door
Ticket valid for both days
ARM Club, SASAUG and ROUGOL members free on Sunday
Send Cheque payable to The ARM Club at:
RISCOS 2000
Merton Court
38 Knoll Road
Sidcup
DA14 4QU
Tel 07050 679262 Fax 07050 679263
More information at: www.armclub.org.uk/shows/riscos/
Advert by PHOTODESK

Free Ads

• WANTED: Flash disc for an Acorn Pocketbook2 or Psion 3a. Any size over 256K. Contact Bob, tel: 01665 710595; e-mail: **wobblybob@ukgateway.net** (Northumberland)

• WANTED: BBC Master 512 Co-Processor with associated software and manuals. Call Paul on 020 7202 3309 or e-mail **paul_jagger@uk.ibm.com**

• FOR SALE: Risc PC 4-Slot BackPlane, £30 (no offers). Call Paul on 020 7202 3309 or e-mail **paul_jagger@uk.ibm.com**

• Acorn A3020, 4Mb, 60Mb HD, lots of software, some mags. £60 including postage or with either a PSX or US N64 will swop for Dreamcast plus a few games. Martin, tel 01935 425974

• Acorn A3000 and Acorn 3010 (both RISC OS 3), monitor and Panasonic Dot Matrix KXP 1180 printer plus software (mainly games) — any offers, in return for donation to charity. Buyer collects/pays postage. Location: St Albans. Tricia Gibb e-mail: **gibbmeautys@talk21.com**

• Acorn bits. Two master 128's, two BBC B's, one Z80 processor; three printers; five 5in drives; one A3000 with 4Mb and 170Mb HD: £200 Tel: 01757 638643 (Yorks)

• Archimedes 310 (1989) perfect working order, little used, lots of software £70. Peter Trower Tel: 0121 745 7198 (hm) or 0121 793 7855 (wk). E-mail: **p.trower@bham.ac.uk**

• Three Risc PC 600s, 8Mb, 1Mb VRAM, 420Mb HD, CD-ROM, second slice; AKF60 monitor: £225 each. Call Stephen on 01268 785184 (Essex) or e-mail: **s.c.salmon@ukgateway.net**

• Risc PC 600 inc CD-ROM and speakers, box of AU mags up to 1998 inc many cover discs. Lots of software inc TextEase: £150 minimum. E-mail John **a.j.parsons@zetnet.co.uk**

• Risc PC AMD 586 133Mhz PC Card 128k cache £100 ono. Phone TK on 0208-480-9265 or email **st903@gre.ac.uk**

• Archimedes 5000, AKF18 14" Monitor, keyboard, mouse all working. No cables, hard disc wiped. Free as long as you collect from Bromley, Kent. Ring 020 8460 1771

• A7000 12/500 CD, 14" monitor etc. Various software. Little used. £175. Canon Direct drive laser printer & card. £100. Tel: 01424 846213. (Sussex)

• Risc PC 600 OS3.5, 41MbRAM, PC-card, CD, Ethernet, 250Mb+850Mb Yellowstone IDE. SecondSlice + PSU.Schema, AUN,T/CPIP. £350. **bhh@hanowen.demon.co.uk**. Tel: Bruce 01425-476950 (Ringwood,SW-Hants)

• Archimedes 310 (1989), perfect working order, litle used, lots of software £70. Please ring Peter on 0121 745 7198 (home); 0121 414 4917 (office); 0796 793 7855 (mobile) or e-mail **p.trower@bham.ac.uk** (Solihull)

• StrongARM 233Mhz + RiscOS 4 and 32MB SIMM. £200. Call Paul on 0207 202 3309 or email **paul_jagger@uk.ibm.com**

Acorn User Free Ads Service

Why not take advantage of our free reader ad service? Fill in your details on this coupon (24 words maximum, one word per box below) and send it to Free Ads, Acorn User, 26 Stockport Village, Hooper Street, Stockport SK1 1DQ or by e-mail to: freeads@acornuser.com. Only one ad per reader please, private sales or wanted only.

Although we try to publish every ad we receive, we can make no guarantees; publication is entirely dependent on space and time constraints.

Please fill in your name and telephone number below – these will not be published but enable us to contact you in case of any queries. Make sure you include your own town/county in your ad to help potential buyers with their purchasing decision.

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What's happening out there?

Neil Spellings lets you in on what's going on

This month its new... new... NEW! The AAUG has been busier than ever over the past few months. Read on for exciting new details: Thanks to a new Webmaster, the AAUG site has been given a long -awaited revamp, and is now updated on a regular basis (far more regularly than your overworked chairman could manage previously).

We also have a special e-mail address for clubs to use to keep the webmaster and others up-to-date on club events, meetings and contact details (**changes @aaug.net**). Why not pop over and check out some of the changes **www.aaug.net**

New clubs

The AAUG are co-ordinating the creating of two new user groups, to add to the established 21 regional groups in the UK.

The benefits of having a local group where you can go to see the latest RISC OS products, and to talk with other RISC OS users cant be beaten, and the AAUG are always keen to hear from anyone thinking of setting up a group in their area.

If you live in or around Birmingham e-mail **bham@aaug.net** or in Northern Ireland e-mail **NIAUG @aaug.net** to register your interest. If they get sufficient interest, it will mean that RISC OS users in both areas will be able to benefit from all the advantages user group membership bring.

New discounts

The popular AAUG discount scheme is always being updated and extended. This month we see the addition of Levens Software (**www.levens-software.co.uk**) who are offering all user group members 5% discount on RiscStation products and a selection of monitors and hard discs, and 4% on Kinetic Risc PCs — discounts which could potentially save you over £100 off a new RISC OS machine.

More great news is that Photodesk Ltd (formerly Spacetech Ltd) have also confirmed they are still offering their 10% discount on all their software products to user group members.

A complete list of details can as usual be found on the AAUG Web site: **www.aaug.net**

Epson show

This year, groups from the AAUG have once again been involved in organising and running the RISC OS 2000 Show, taking place on 21st and 22nd October at Epsom Racecourse, Surrey. Dozens of exhibitors from all sections of the RISC OS market are attending, and are this year also joined by a number of exhibitors from the Psion and palmtop markets — plus all the usual attractions of a major show at a prestige venue.

To run the show this year, The ARM Club are joined by the Surrey and Sussex Acorn User Group (SASAUG) and the RISC OS User Group of London (ROUGOL), who both assisted over the weekend itself last year.

The three organising groups are also assisted by other user groups in the south-east, whose members help to run the show itself. It should be a hectic but enjoyable few days for exhibitors, organisers and visitors.

Members of The ARM Club, SASAUG and ROUGOL receive free admittance on the Sunday only, on presentation of a valid membership card. Other visitors are advised that Sunday is usually a much less busy day — less queuing to reach the exhibitors you want to talk to.

As usual, the AAUG will have a large presence at the show — showing some of the more unusual and innovative uses of RISC OS hardware and software so drop by and you may be surprised at some of the places that RISC OS get used.

AAUG.net e-mail

Something that we promote at shows and get quite a lot of interest in but otherwise don't really advertise is our AAUG.net email addresses. To assist the funding of the AAUG, we offer an AAUG.net e-mail address to user group members for a measly £1 set-up fee.

Having an AAUG.net e-mail address gives you a short, simple email address which you choose, which allows you to move ISP as often as you wish (to take advantage of the free and new un-metered ISPs that are springing up) without having to change your e-mail address.

All we do is redirect your AAUG.net address to your new ISP mailbox. It's that easy. We also offer this service to non-user group members for double the price — an astounding £2.

Anyone wishing to purchase one of these addresses should send a cheque for the appropriate amount payable to Neil Spellings to the address at the end of the article, and state your preferred "alias" (the bit before the @aaug.net) and your "real" e-mail address.

AAUG Contact details

Web: www.aaug.net
E-mail: neil@aaug.net
Post: Flat 5, 19 Normanton Road, South Croydon, Surrey. CR2 7JU
Tel: 07785 935497

END



From the leading names in Education



We are very pleased to announce that from the 1st July 2000 Cannon Computing / Cumana took over the distribution, sales and marketing of the Network Computer (Sprinter). The product will have changes made to it and we now have the new release of machines in stock.

Cannon Computing and Cumana have been playing a leading educational role in Network technology for some time now. We are a Citrix Silver Reseller and a Citrix Partner. Our sales advisors are on hand to advise any school about using new and older (Acorn and PC) technology and the capability of running both RISC OS, PC and AppleMac operating systems.

CALL 0870 240 8080
for your nearest Cumana / RISC OS Network Dealer

Thin Client Technology
Independent Computing Architecture (ICA)

This is a system to provide cross-platform software compatibility with low client station capital and running costs, whilst providing higher levels of reliability. To explain, you need a network infrastructure, an NT server and any number of Thin Client computers, or Network Computers (NCs). All the Thin Clients are controlled from a central NT server (or servers), which hold user configurations that are centrally administered and thus client systems cannot be re-configured locally; this minimises client station problems. As NCs have no floppy disc drive it is impossible to introduce viruses or indeed pirate software from these client stations. Other standard desktop computers can also be added to the system if required and these can comprise a mix of Acorns, AppleMacs and PCs. ICA is a cost effective way of extending the useful life of your existing older Acorn (or PC) computers, many of which will probably be mechanically sound for a good few years yet.

Any schools or individuals who are interested in receiving our "ICT Planning Document" please contact us on the below numbers and we will post a copy to you.

AUTHORISED RESELLER



See us and a demonstration of Citrix at the RISC OS 2000 show 21st & 22nd October at Epson Racecourse.

Stand Number U4

Cumana 'R'NC
Network Computer
£299.00 + vat
(£351.33 inc) + your choice of monitor



Ideal for Acorn RiscOS software, Windows PC software when used with Citrix

[Please note : NCs require connection and configuration to host server, locally or remotely]

Specifications of Cumana 'R'NC

* 16Mb RAM (Expandable by removing base 16Mb)
* 32bit 7500 FE ARM processor
* 4Mb ROM for OS
* Infrared Keyboard support
* PS2 Keyboard, 3 button Mouse and mat
* 10-baseT Ethernet network card
* 15way D monitor port
* Parallel port
* !Topcat ready

If you would like to receive more information on this new product then please contact us on 01279 730800 / 900 or e-mail sales@cumana.co.uk

Monitors to choose from:
104b Philips 14" 0.28mm, 800x600 ....£79
G655 Viewsonic 15" 0.27mm,70kHz,1024x76 ....£108

www.cumana.net

Call us now on Tel +44 (0)1279-730800/730900 Fax +44 (0)1279-730809. sales@cumana.co.uk, www.cumana.net
Cumana is a trading name of : Cannon Computing, Whitegate, Dunmow Road, Hatfield Heath, Bishop's Stortford, Hertfordshire, CM22 7ED. AU November 2000.
Without Prejudice.All Registered Trademarks acknowledged. Partners: Nigel D. & Sara L. Cannon.
All prices are UK £ sterling &, unless otherwise stated, exclude VAT and delivery. E&OE.











Census takers

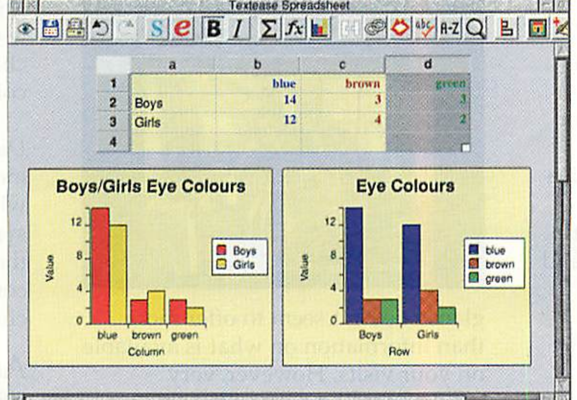
The CensusAtSchool scheme is an interesting opportunity to involve pupils in a national census designed just for them. All teachers have to do is access **http://censusatschool.ntu.ac.uk** to find details of how to get involved.

Organised by the Royal Statistical Centre for Statistical Education at Nottingham Trent University and in partnership with the office for National Statistics and MathsYear 2000, CensusAtSchool will be the largest ever undertaken. All students have to do is complete a short, anonymous, questionnaire on or around October 29th to provide a snapshot of the school population. This information will then be available for schools to use as a resource allowing you to compare regional results with the national ones.

Professor Neville Davies of Nottingham Trent University said of the project: "It provides a unique and exciting opportunity to involve pupils in collecting data about themselves, improve their data handling ability and encourage teachers to use ICT and the Internet for educational purposes."

Easy time in the studio

Softease (+44/0 1335 343 421) have put their latest programs together in a new suite entitled *Textease Studio*. Easy to configure for a wide range of learners, the new toolkit comprises *Textease 2000*, a word processing package incorporating Textease Primary, *Textease Spreadsheet*, a powerful numeracy tool, and *Textease Database*, which can be used to store pictures and sound as well as numbers.



Suitable for children (aged 5 and upwards) and adults, *Textease 2000* features fully configurable windows that make true multimedia authoring and presentation a reality. You can now create your own word banks, resource banks and animations, as well as edit objects positioned on the page, flow text within frames for newspaper creation etc, send files via email, design web pages and record voice and music directly into Textease.

In addition, *Textease 2000* can be run in *Textease Primary* mode, which turns the package into a talking word processor designed to meet the literacy needs of 5-11 year olds.

Textease Spreadsheet is a powerful numeracy tool designed to perform a wide range of functions - from creating the simplest of tables to calculating complex mathematical formula. Students can enjoy enhancing their work by incorporating pictures, video and sound, or by designing and printing posters and banners in a range of sizes.

Textease Database completes the suite with an easy accessible yet sophisticated database program featuring a simple interface with sorting facilities to order information and in-built graphing options. Unlike traditional database packages, words, sounds, numbers, pictures and video can be catalogued and icons, fonts and colours configured to suit even the youngest of children. This program integrates fully with other Textease products and data in one document can relate to data in another.

Textease Studio costs £149 for a single-user licence. Multi-user licences are priced at £25 per user.

In brief

Pictures for free?

No money is required, only time and an Internet connection. Simply access **www.dk.com/eyewitness** and you'll find a free and searchable collection of 40,000 pictures and 2 million words, all of which can be copied and pasted and used in the classroom courtesy of Dorling Kindersley.

Broad access

The Government is expected to set broadband Internet access as the minimum standard for all schools. Broadband is faster than the ISDN links many schools have and is vital for interactive content and high-quality video. Eight regional consortia have been set up by local education authorities to develop broadband access for schools and have been allocated £37 million by the Department for Education and Employment.

See what you get

A new Web site has been launched by Middlesex University in collaboration with the Institute of International Visual Arts (inIVA) to look at visual art in a digital format.

Digital Art Resource for Education (DARE) aims to encourage students to adopt a questioning and hands-on approach to the subject and stimulate debates about the social, political, cultural and economic functions, all by accessing: **www.dareonline.org**

Contacting AU

Pam Turnbull:
educ@acornuser.com

Online resour

Following on from last issue's analysis of the best Humanities Web Sites, this time Pam Turnbull's grilling the Net for help with Science

The term 'science' covers a huge area of concerns from the environmental to human biology from health and safety to magnetism. As the Web is supposed to be the source of all information, let's just see how reliable the sites are when it comes to teaching science, instilling in children a sense of awe as well as inspiring them to find out more.

Educate the children

www.educate.org.uk

*Star rating: ***

A new site which promises to be an excellent general site dedicated exclusively to primary education for teachers, parents and children. The Science section complements the QCA Primary Schemes for Work for Science as well as allowing you to download the QCA module, the idea that teachers can access a full unit of work: weekly lesson plans, factfiles, worksheets, interactive resources and assessment.

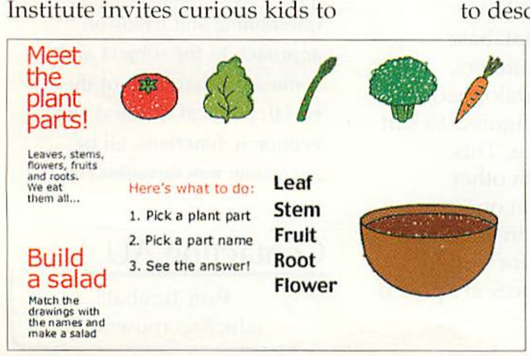
However, at present this is far from complete, for instance, Unit 3b: *Helping plants grow well* only provides a writing frame to enable children to record investigations in terms of the apparatus they used, their method, results and conclusion.

Cool science

www.hhmi.org/coolscience/index.html

*Star rating: **

The Howard Hughes Medical Institute invites curious kids to explore biology on and off screen. Highly graphical, children can dive into a miniature world without a microscope, meet the dust in the air and see what we breathe, ask why snakes are like lizards, and monkeys like moose? Or find the connection between butterflies and caterpillars.

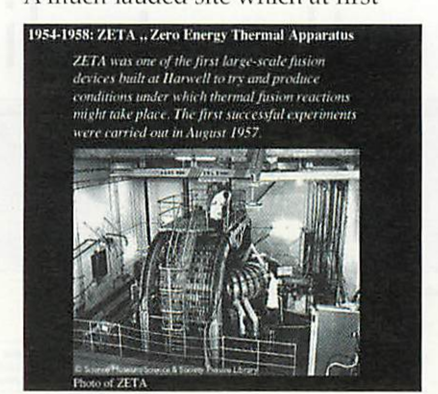


Science museum

www.nmsi.ac.uk

*Star rating: ****

A much-lauded site which at first



glance doesn't seem to offer more than information on what is available on your visits. However, very quickly you'll discover that this is varied and compelling with facts and figures on everything from flight to fusion. As well as the informed online exhibitions about the history of science, scientific people and events, there are *exhiblets*.

These are digital exhibitions which use the museum's collections, to describe important events, discoveries and personalities in science and technology. So you could find out about Marie Curie or, perhaps, revolutionary items which have brought about changes in society: Charles Babbage, the LotusSport Bike, Blockmaking and Typewriters.

In addition there are new and detailed 'galleries' being added all the time, such as the new energy exhibition which are easy to read, well illustrated and encourage you to comment and ask questions.

Teaching ideas

http://science.teachingideas.co.uk

*Star rating: **

A highly practical site for teachers full of hints and tips when it comes to delivering the curriculum. A table shows what ideas are available and what age they are suitable for. So for instance, the item on *Melting Coloured Ice* for Key Stage 1 is a fun activity, great for a hot day, which can be used to teach children about changing materials and mixing colours.

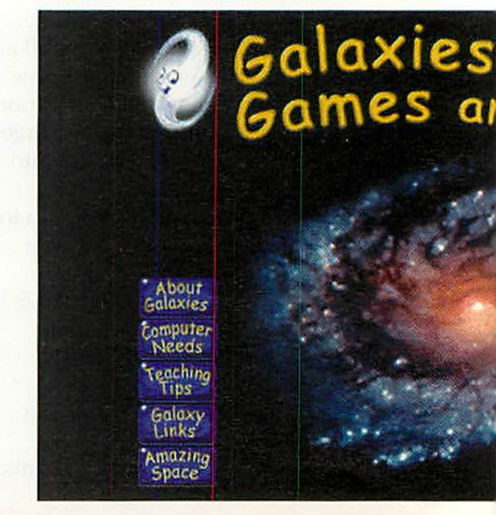
Or how about *Circuit Symbols and Diagrams* for Key Stage 2 which includes a useful reference sheet which shows the different circuit symbols and a worksheet which tests the children's ability to identify complete circuits by looking at circuit diagrams.

Amazing space

http://amazing-space.stsci.edu/

*Star rating: ****

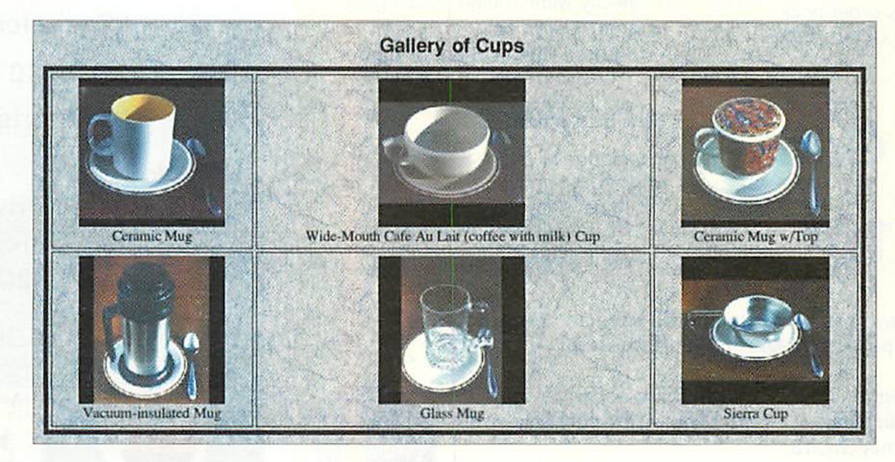
A set of Web-based activities





ces – Science

primarily designed for classroom such as whipping up a batch of Comets, find out the Truth about Black Holes, or play with the building blocks of the universe, galaxies, in Galaxies Galore. You can also find out what light and colour can tell you about stars in Star Light, Star Bright or learn about the objects that make up the Solar System by collecting Solar System Trading Cards. You can also train to be a scientist by enrolling in the Hubble Deep Field Academy.



NASA kids

http://kids.msfc.nasa.gov/

*Star rating: ***

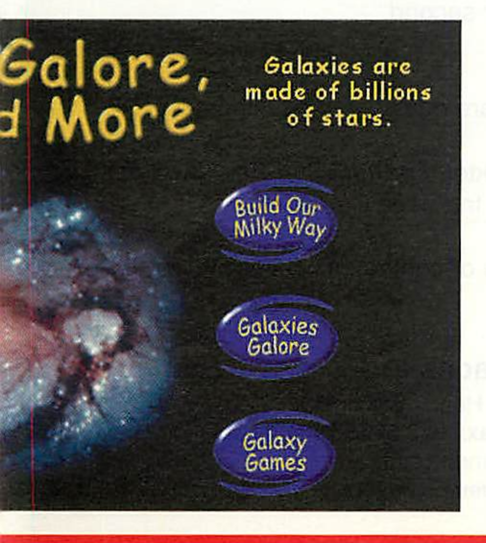
Where better to find out what's going on in space than here? There's loads of information on aeronautics, human space flight, and space science. There are also some great pictures. The kids section though goes beyond space showing how NASA's new technology to improve video images of the sun and storm systems on Earth can be used to combat crime. Then there are the *space crystals* to play with.

Exploratorium

www.exploratorium.edu

*Star rating: **

There are Science Explorer activities to take part in, as well as feature articles on solar cycles, landmines and the science of doing better at sport. Then there is the Observatory featuring eclipses, transits, SETI, auroras, scale solar systems and how to find out "Your Weight On Other Worlds".



Cups and heat transfer

http://vygotsky.berkeley.edu/people/bruce/cups.html

*Star rating: ****

Every country serves tea or coffee traditionally in different looking cups. In a typical office, often no two people have the same type of coffee cup. But these cups all act very differently in terms of how they keep coffee warm or cola cold. Here you choose the best cup, look at heat flow or even your own cup and get your design marked by a scientist.

Chemicool table

http://the-tech.mit.edu/Chemicool/

*Star rating: **

Click on the colourful Periodic Table or type in the name or symbol to find out about each element in detail. You've got 18kg but want to know what it is in lbs – no problem with the Unit Conversion Table.

Neuroscience for kids

http://faculty.washington.edu/chudler/neurok.html

*Star rating: ****

For students and teachers who would like to learn more about the brain. You can explore the brain, the spinal cord, the neuron, and the senses. Then there are experiments, activities and games to help you learn about the nervous system. If you have a question about the nervous system, the "Neuroscientist Network" can find the answer. Then there information on current events and new discoveries in brain research.

Explore the heart

http://sln.fi.edu/biosci/biosci.html

*Star rating: **

Everything about the heart is here from the history of our knowledge to the latest technological advances in heart surgery. You can learn how to have a healthy heart and how to monitor your heart's health.

Bizarre stuff

http://freeweb.pdq.net/headstrong/default.htm

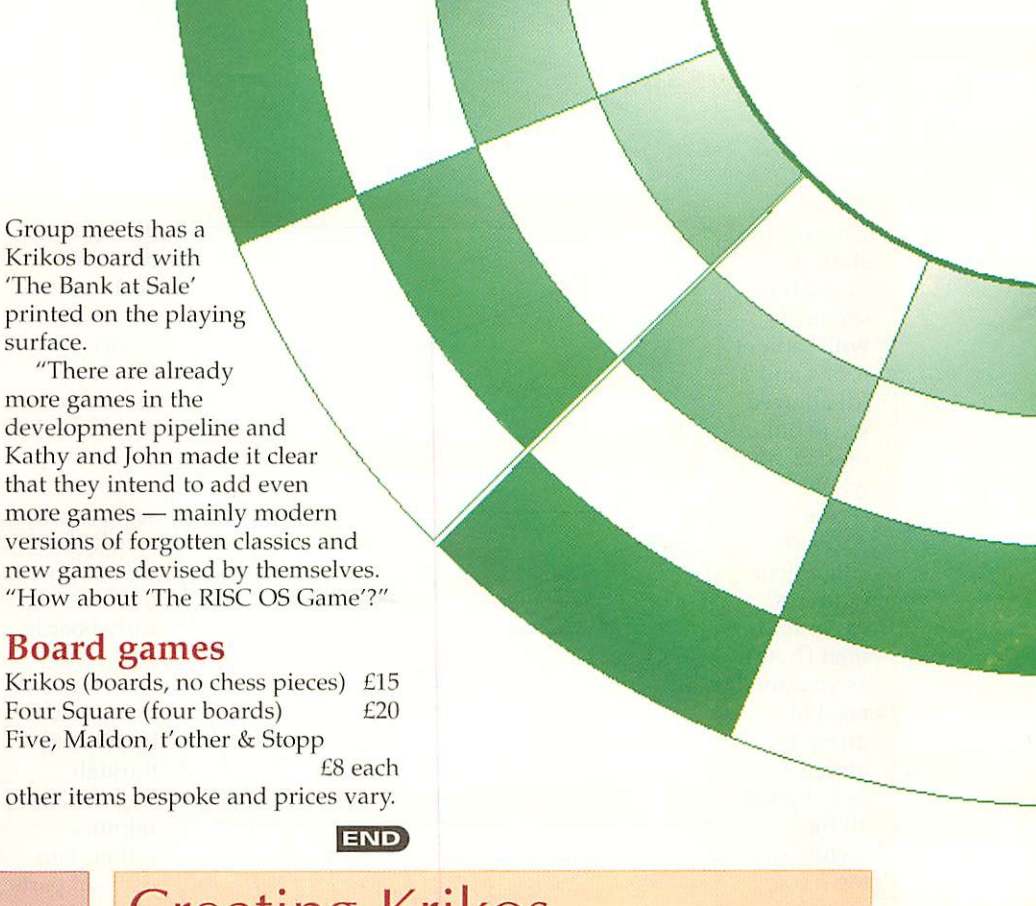
*Star rating: ****

Full of projects made from everyday materials such as a classic airship design from 1909, as well as crystal gardens, radios made from rusty razor blades and making fire with a wooden bow and drill. These simple science projects that have become part of the collective lore of amateur science.

END

What the stars mean

*	some good points
**	good for teacher resources
***	can be used constructively by teachers and students



Continued from page 36

than a standard board. From the beginning Kathy has insisted that Fleur Designs should produce bespoke products at prices similar to mass-produced items so even a one-off board won't break the bank.

"Because of the way we manufacture the games we can produce very small numbers, something made possible by the simplicity in use of RISC OS vector applications, and regularly produce one-offs. Krikos is green and white in its standard livery (chosen to avoid antagonising either United or City fans) but as it happens our first bespoke Krikos board was blue & white for a Blackburn Rovers' fan.

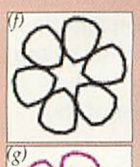
"We have since added personal/corporate details to the Krikos board; for instance the pub where the Manchester Acorn User Group meets has a Krikos board with 'The Bank at Sale' printed on the playing surface.

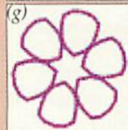
"There are already more games in the development pipeline and Kathy and John made it clear that they intend to add even more games — mainly modern versions of forgotten classics and new games devised by themselves. "How about 'The RISC OS Game'?"

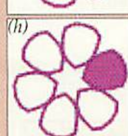
Board games

Krikos (boards, no chess pieces) £15
Four Square (four boards) £20
Five, Maldon, t'other & Stopp £8 each
other items bespoke and prices vary.

END

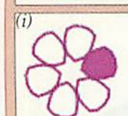

(f)


(g)

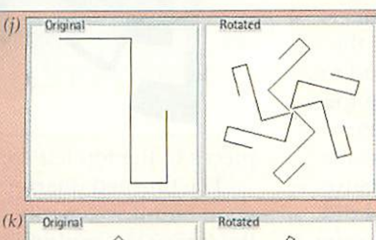

(h)

to obtain some very pleasing designs, such as (f) which we coloured (g), gave a stand-out petal (h) and completed with our name and address (i).

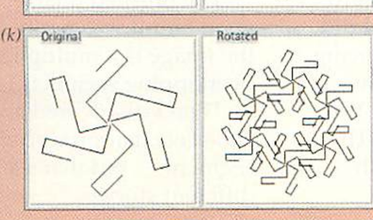
DrawRot will even allow you to save its output into its original screen to multiply duplicate and rotate; (j) and (k).


(i)

Fleur Designs
fleur@cartmell.demon.co.uk



(j)



(k)

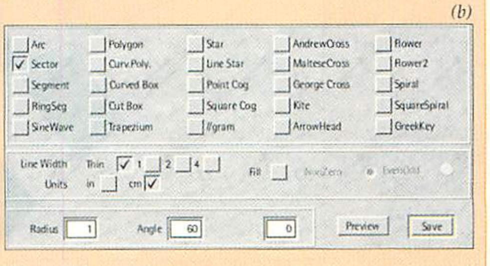
Creating Krikos

Although it's easy to produce the frame of a circular chess board (a) the problem arises when you want to fill in with an alternating pattern of dark and light. I struggled for months to get the right effect using various combinations of *Apollonius*, *Vantage*, *ArtWorks*, *Vector*, *GridPro* and *DrawWorks New Millennium*.

(a)

ArtWorks was particularly frustrating as its grid is restricted to a standard rectangular form while *Vantage* has Isometric (like *Draw*) and circular grids. As I'm writing this Martin Wuerthner has produced an applet plug-in for *ArtWorks* that gives the three forms of grid so I may be using that for my next games' designs.

Back to a few months ago, when I was still unable to produce a partially filled circular grid, until I remembered Rosemary Miskin's *DrawLots* program. Sure enough you could use *DrawLots* to produce a sector of any radius and angle (b) Setting it for radius 7, angle 22.5 and saving the sector to *ArtWorks*

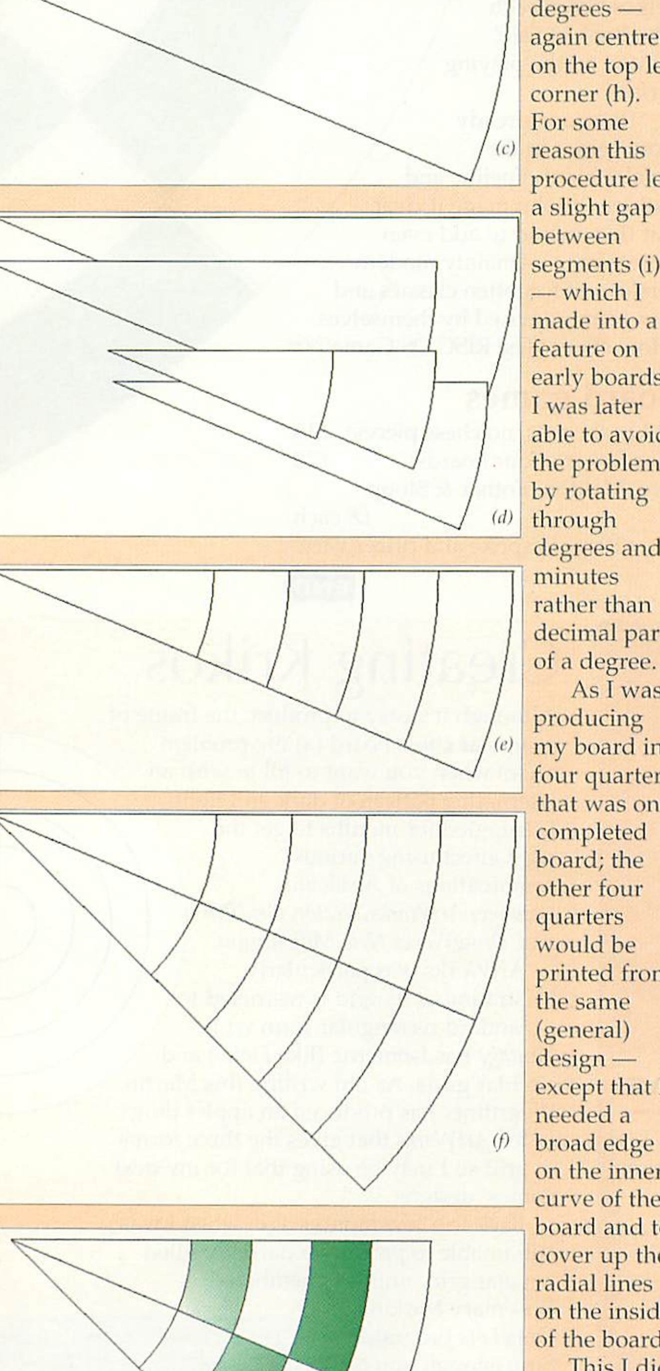


(b)

gave me the start. (c).

Adding segments with radii of 6, 5, 4 and 3 (d) allowed me to build up one whole sector. *ArtWorks'* Alignment option is easier to use than *Draw*'s as you don't need to group the objects first so I aligned all the sectors to the top left (e); cloned the group then rotated the clone through -22.5 degrees about the top-left corner (f). To colour the 'squares' I selected alternate 'squares' and used the radial fill to fill them from white to green, giving the effect of darker 'squares' at the outer rim of the board (g).

I could now group the drawing and clone and rotate the clone



(c)

(d)

(e)

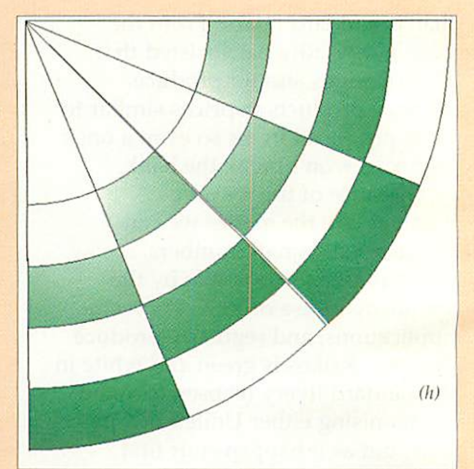
(f)

(g)

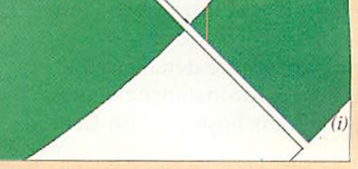
through -45 degrees — again centred on the top left corner (h). For some reason this procedure left a slight gap between segments (i) — which I made into a feature on early boards. I was later able to avoid the problem by rotating through degrees and minutes rather than decimal parts of a degree.

As I was producing my board in four quarters that was one completed board; the other four quarters would be printed from the same (general) design — except that I needed a broad edge on the inner curve of the board and to cover up the radial lines on the inside of the board.

This I did by producing two more sectors of 90 degrees This time with one just

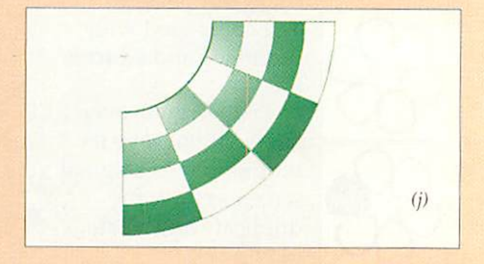


(h)



(i)

smaller than the other. The larger one was filled with dark green and the smaller with white; their line colours were changed similarly and they were aligned with the rest of the



(j)



(k)

pieces to the top left corner.

The finished quarter (j) looked good and it was a pity that behind the image is a multiplicity of overlapping sectors.(k)

Then I discovered an option in *DrawLots* that produced a ring segment — but that's a completely different story.

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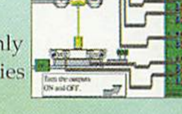
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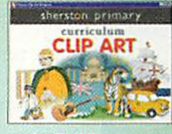
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Over the fence

Robert Richards finds out if the grass is really greener on the other side

Many of you will have read my letter in the July issue of *Acorn User*. I was a brassed-off Windows user considering jumping ship to RISC OS, but put off more than slightly by the small market and seemingly uncertain future. Well, now I'm an ex-brassed-off Windows user, getting to grips with my newly acquired secondhand Risc PC.

It had to be secondhand because of my student status, I just couldn't afford a brand new machine. But how does my adopted platform compare to the PC? Am I satisfied that I have made the right decision, and is the machine capable of everything I want it to do?

The PC

The PC I owned was bought new from Dell in August 1999. The Pentium III processor had just emerged, and it was fitted with the 450MHz variant, 128MB RAM and all the usual trimmings such as DVD. I paid extra to have AGP and ATI graphics, and have the RAM on one SIMM. I was intending the machine to last me at least until the end of my university degree course.

All told the machine cost me £1400, a large chunk of the £6700 I was paid for my engineering placement gap year — I sold it for just £650. I won't go into the reasons that caused me to think about dumping the PC, that would fill pages. Basically, the operating system (Windows 98) was unreliable and had to be reinstalled three times in nine months. The *MS Office* software supplied was riddled with bugs. Embedded pictures in documents losing their formatting after every save, the equation editor in *Word* never worked properly, frequently crashed and was slow and cumbersome anyway. I was irritated by Microsoft's obsession with making everything able to work as a web browser, without actually getting the basic functions of the software to work properly. And when the OS is bundled with a decent dedicated browser, is there really any need for this?

On the positive side, there was stacks of software available for the machine, and I did think the implementation of the filing system and Internet was good. Plug and Play is also quite convenient, providing it works properly, which it doesn't always.

The Risc PC

When I decided to buy a Risc PC, it was met with a mixture of incredulity and disbelief. I tried explaining about RISC OS, but most people seemed to think that the platform had stopped at the A3000 they used at school. It seems many people just aren't aware that the present day RISC OS machines exist. I only discovered them by accident, after stumbling across the Acorn newsgroups on a rainy afternoon.

Perhaps one reason why the market is so small is the complete lack of publicity outside our little community. There is no logical reason for it, and it's rather frustrating to have bought into a platform in which the major players seem apathetic towards its promotion to the wider public.

I'm happy to say that those who thought I was mad to ditch the PC and move to RISC OS have been silenced after seeing the machine perform, even my girlfriend stopped criticising. The fifteen second boot was absolutely stunning the first time I witnessed it, a far cry from the nigh on four minute boot of my old PC. My Risc PC has only crashed once so far, and that was because of some suspect four-year-old cover discs the previous owner had. The Windows PC crashed on a regular basis, it was a pleasant surprise if I managed to get through the day without some sort of problem. So I can safely say that RISC OS is far more stable than anything Microsoft have to offer.

In actual usage, the desktop and general operations such as copying files and loading applications feels far smoother and slicker than what I am used to. No pauses whilet menus pop up (I am reliably informed that you need a PIII 800 and 256 Mb to stop this happening in Windows). Applications load a lot faster, and the whole system just feels more professional.

As for setting up printers, Zip drives and monitors, there's no plug and Play in RISC OS, but then it isn't really needed. What could be simpler than dragging a printer definition file over to *Printers*? Changing monitor resolutions and installing software and drivers without having to reboot is another area in which RISC OS clearly outperforms Windows.

nd there are no complicated setup utilities to negotiate after installing software. I was truly amazed that installing *TechWriter* consisted of nothing more than dragging an icon into a directory. And how does such a comprehensive piece of software fit onto a single floppy disk? I'm used to 200Mb+ applications taking over half an hour to install and set up, if you're lucky.

Many people warned me that a Risc PC would not be suitable for many of the tasks that are taken for granted on a Windows machine. I was told all about slow disc access, lack of modern expansion ports and a tiny amount of software available in comparison to Windows. I was told that the machine would be slow and unsuitable for tasks such as embedding JPEG's in documents and encoding MP3's.

It's true there is much less software available for RISC OS than most other platforms, but it is my

experience the available software is of a very high standard. I haven't come across an application yet that I wouldn't pay a reasonable amount of cash for. Coupled with that is the better technical support that is often available.

I bought *TechWriter* and had a small problem with it. I rang Icon Technology and found myself speaking to one of the programmers and the problem was resolved in minutes. For the record, it was a problem with my setup and not the software itself. Do you get that with Microsoft? No, you get an automatic e-mail telling you ring a call centre staffed by people who seem to be reading questions and answers without any real understanding of what they are talking about.

As for encoding MP3's, well yes, that probably would take rather a long time. But then I much prefer my music played through a proper stereo rather than some puny computer speakers. And so far, in every application that supports it, I haven't had long waits for JPEG's to be inserted into documents.

The hardware is getting a bit long in the tooth now but developments like Kinetic show that there is a life left in the Risc PC yet. And then there are the brand new Riscstation and Microdigital machines plus Cerilica and Millipede will be bringing us hardware that is bang up-to-date. My StrongARM Risc PC will keep me happy for a long time, even the 14" AKF60 which is a bit of a downgrade from the 17" is acceptable.

The future

With Windows, your future as a computer user is taken for granted. Microsoft is not going to suddenly go out of business, and there is always a Windows update on the way. In the RISC OS world, things seem to be rather less secure, or so some would have us believe. This nearly caused me to drop the whole idea and sticking with what I had. I imagine it will put off others from making the same decision until it is resolved. The RISC OS world seems a strange one to someone used to companies touting new products and upgrades almost daily.

The complete silence from many companies is disturbing to say the least. I don't think it's all over, if it was there would be no point in holding back and not making it public. It's just that the uncertainty is very off-putting. Nobody is going to buy a Kinetic, or R7500 or anything else unless they know it is going to be properly supported well into the future. I did take the leap, but perhaps I am the exception to the rule.



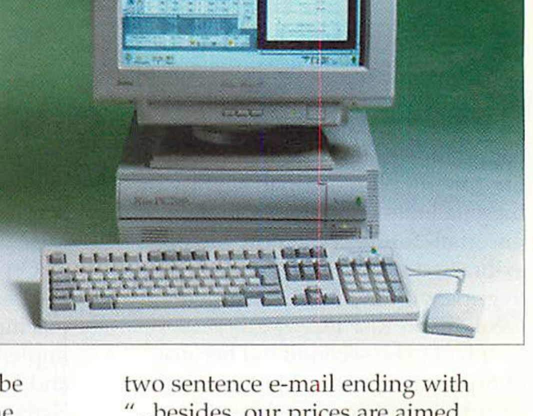
Conclusions

I am happy to say that I feel I've made the right decision in switching to RISC OS and I don't think I'll be looking back and wishing I had my PC again. RISC OS is faster, easier and more enjoyable to use than Windows for every task that I use a computer for.

The Risc PC is an amazing piece of kit with its dual processor option and expansion potential. I don't care if the processor is running at just 202MHz, the system is much more responsive than anything I've used before.

There are parts of RISC OS I don't like, in particular the Filer. It can be awkward to get directories into view for saving, it would be nice of there was a way of putting say a 'documents' directory onto the iconbar and dragging save icons to it without messing around with windows — although there's probably a PD program that will do the trick. But I do like the way opening directories causes them to cascade over each other, it's superior to the Windows method of a huge long list in my opinion.

A big disappointment is the almost complete lack of student discounts offered. PC hardware and software companies generally give discounts, but this seems to be the exception with RISC OS. A polite enquiry to Castle was met with a curt



two sentence e-mail ending with "...besides, our prices are aimed mainly at the education sector". That seemed to be a very strange statement to make.

Generally though I have found other companies to be extremely helpful with my enquiries. I was pleased at the massive discount offered on *TechWriter*, particularly as it included a full set of printed manuals. Often student offers in PC world come with the proviso that you get no documentation.

I think I'm going to be happy with my new machine. My only yearning is for one or more of the major players in this market to bite the bullet and promote what we've got. Nobody needs to know about the demise of Acorn and all the rest of it. They just need to be shown these great machines, far superior for ordinary use than their Windows boxes, that have been sitting quietly unnoticed all this time.

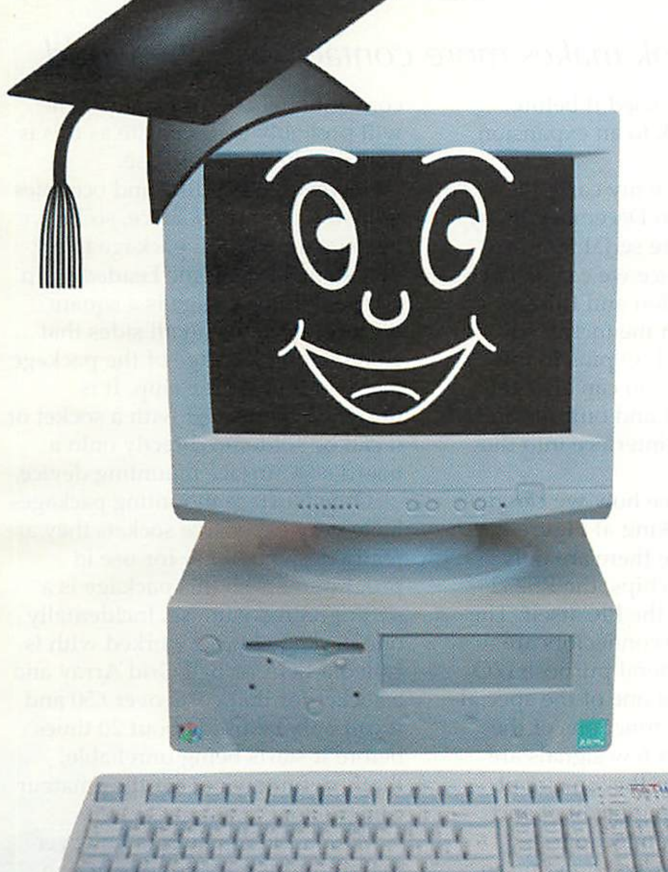
They won't ever be noticed on a large scale unless somebody makes a proper job of promotion in the newspapers, on the radio and on the television. And with some fantastic looking machines on the not too distant horizon, there is a lot to be said for the RISC OS platform But I do feel smug when I look at my father becoming irritated as *MS Excel* hangs for the third time in as many hours...

Next month I'll be comparing *TechWriter* and Microsoft *Word* in the preparation of typical engineering student reports.

END



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The bigger

Mike Cook makes more contact with the world

Over the last two months we have looked at how to program the PIC16C8XX family of micro controllers, so this month lets put that into action by using one to make an I/O expander. Followers of my column will know that this is one of my favourite topics based on the belief that you can never have too many inputs and outputs. The idea is simple and I have used it before, that of a serial link to an expansion board.

However, unlike my early PIC design in RTR47 in December 98, by using the hardware serial interface built into this device we can achieve both faster operation and full duplex. Also, with the increased number of I/O pins in this larger PIC you can also get more input and outputs and get an I2C interface into the bargain.

So let's see how we can do this by looking at Figure I, as you can see there are only really two chips, the RS232 buffer and the PIC itself. The bulk of the connectors are free for general purpose I/O or for using one of the special alternative functions of the chip, only a few signals are reserved for the "in circuit programming facility" and the serial connection.

Using this system you can explore the potential of this PIC without resorting to using machine code. Note here that you can also use the smaller PIC16C873 for this project, the only limitation being that there won't be any connections for Port D or E.

Construction is not critical and perhaps the biggest choice you have is what chip package you are going to use. I haven't put any pin numbers on the diagram because they are dependent upon what package you choose to use. The conventional DIL or Dual In Line will probably be favourite as this is perhaps the easiest to use.

However, it is bulky and occupies quite a lot of board space, so I have been using a PLCC package lately, that stands for Plastic Leaded Chip Carrier. This package is a square with connections on all sides that come out of the edge of the package and bend under the chip. It is designed to be used with a socket or it can be soldered directly onto a board as a surface mounting device.

Other surface mounting packages have very expensive sockets they are really designed only for use in programmers so this package is a sort of halfway house. Incidentally one package I have worked with is called a BGA or Ball Grid Array and a socket for that costs over £50 and it can only be used about 20 times before it starts being unreliable, that's definitely not for the amateur constructor.

With a PLCC package however the pin-out is a bit strange, if you are used to conventional DIL packaging, pin 1 is halfway along one side, even worse the pin out when looking at the underside of the socket is not that obvious. This is because the lead pitch is not on the standard 0.1" pitch but the socket is.

To pull off this trick there has to be two rows of connectors along each edge and things get tricky at the corners. Figure II shows the pin out of the socket from the underside, of course with connections on a pitch like this you will need to use square pad board rather than the normal strip board.

You might like to bring out the

Figure I: The PIC I/O expander circuit



PIC

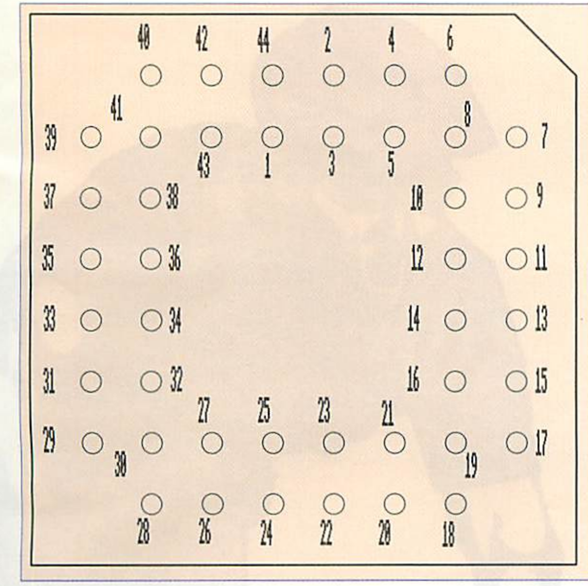


Figure II: Underside of the PLCC socket

I/O connections to screw sockets or build it up into a box with multi-way connectors.

The software works with a basic command / response structure, that is you give it a command byte or bytes and it responds with one or more bytes. Rather than build up a lot of sophisticated commands that do complex input and output I have implemented a simple register-based command set.

In this way the commands act on specified registers, so there are no commands to output signals specifically but if you store something in register 6 for example it will be output on Port B. So in that respect to use this project you will need to know the register map of the PIC and what they do. This information is available in the data sheet found on my *Acorn User* Web site or on the cover CD.

There are only three commands built into this I/O expander, an identifier, read and write, these are shown in Table I. The read command takes a byte that specifies the register to read and then the board returns that byte.

Similarly the write command takes a byte that specifies the register followed by the byte to write to it. This then returns the byte read back from this register after writing to it. It is not necessarily the same value, as some registers have read only or write only bits. Also, some registers might be being used by the boards software itself and so poking about in these might cause confusion, this is mainly around the UART or serial port registers.

The last command, the identifier returns a string identifying the software version, this string is terminated by a null or zero byte.

If you look at the structure of the code you can see that it is easily upgradable. The first byte is passed through a vectored jump table so all you need to do is to add extra entries pointing to your own routines. For a bit of safety, just before this table the instruction byte is ANDed with 3 just to clear all the upper bits so that an unintended jump is not made.

This of course allows four commands so the last one simply points back to the identification command. If you add any more commands you will also have to change this ANDed value and pad the end of the table with dummy jumps. For example if you want more than four commands the value becomes 7 and so you have eight commands, this doubles the amount of commands each time.

To communicate with this board you can use any BASIC program, but perhaps the most interactive way is to use the Serial PIC application that first appeared in December 98. This runs at 9600 baud, which is the maximum speed that all RISC computers can operate at, however this can easily be changed if your computer supports a faster speed, just look for serial op 6 and 7 and change the number there. You will also need to change the number determining the UART speed in the PIC code, see the comments in the listing for this.

So the biggest serial expander yet and made with only two chips, that's just a start as we begin to explore this bigger PIC.

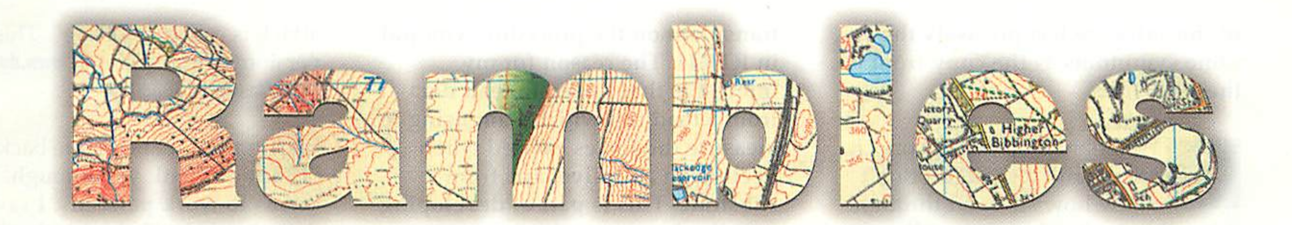
END

PIC I/O expander commands

Command	Value	Additional bytes	Returns
Identify	0	none	Null terminated string
Read	1	Register to read	Register value
Write	2	Register &value to write	Value read back



RISC OS



Mike Cook consults the map and compass

Some time ago I asked in the column about the music language Ample and asked if there was a version that would run on a modern RISC computer. Ample was originally written to accompany the Music 500, a small box that could be attached to a BBC Micro to generate sounds that were revolutionary at the time.

Ample was used to control the box and was a rather good language, being based on Forth. Now I have tracked down a modern version. Robin Terry has written a version from scratch complete with a graphical front end. It will now export MIDI files so that you can make use of the latest sound modules and it will also work with external sounds. As of yet it won't import the old BBC type files but it is on Robin's to-do list.

Best of all though it's free to download and has documentation and example files tucked up inside the application, check it out on **www.aquitaine.demon.co.uk** I can recommend it.

First up is Don Turnbull who you might have thought would have other closer computer contacts than me:


"On start-up my RISC PC (700 + SA + RO4) displays the date at which I closed down, (the previous day) and an incorrect time and runs on from there. I suspect that the internal battery is the problem. The manual tells me that there is one inside somewhere but does not specify where it is.

"Any comments or suggestions to help cure this problem would be welcome. Where is the battery located in the computer, what type is required and where can I get one?. I have, by the way, tried resetting the clock but, as you would expect, this is only of use until the machine is shut down."


Yes this sounds like it is the battery, it needs replacing. The battery on the Risc PC is on the right hand edge of the PCB 4.5in from the back. It looks like a 1in diameter pill box standing upright. Replacement requires a soldering iron. Snip the old one out and then remove the wires. Fit the new one but make sure that it doesn't get too hot when soldering it in as it could explode. Really best left to a dealer.

Now over the Internet from midnighttrooper who appears to be doing some archaeological computing:


"Can you please advise me on getting some input from my BBC Micro's analogue port. I have a joystick which I would like to use in a program I am writing (yes I have an A5000, but I just love the old ones) I seem to remember there being a pretty simple way of doing this, but I cannot find all the old notes about it. "

The command you want is ADVAL(N%), where N% is the value 1 to 4 corresponding the analogue inputs 0 to 3 — software and hardware didn't talk to one another during the design phase.

For an example look at **www.doc.mmu.ac.uk/Acorn/BodyBuild/Software/BB_D3** Which is an etch-a-sketch program that basically looks at two input channels and draws on the screen. Incidentally this command is documented in all the RISC OS BASIC Reference manuals. If you've lost yours then RISC OS Ltd. can supply you with a CD with all the Acorn manuals on.

Martin Hodgson had a bit of trouble with some of my software:


"I downloaded RTR42, and also RTR44 for interest. There does however seem to be a problem with a corrupted file in RTR42. When I load the Analogue Scope application the iconbar menu seem to be lacking some items, and the "Info" box contains just a few hieroglyphics. Clicking on the iconbar opens the application window, but the bottom slider of the scope will not slide, and it all freezes solid when I click in the scope "screen".

I did actually find the July 98 issue hidden away in a directory on the Acorn User 200 CD. This copy



of the software has precisely the same symptoms as the copy from the Web site."


Well hands up on this one, it is my fault although I don't know how sneaked through. Basically you need to change line 80. The second item in the DIM statement says Wn% &300. This should be change to Wn% &600. Martin tried this and wrote:


"Many thanks for sorting this one out. I changed line 80 as you specified. That not only cured the screen that froze when I Adjust-clicked in the window, and the slider that wouldn't, but even the iconbar "info" is OK now.

I need a Save option, so the data can be sent to a spreadsheet for analysis, but I guess I can do a transplant on the procedure you put in RTR44. The reason for my interest is that I need to read data from a load cell which I am using to measure the forces exerted when peeling an adhesive tape from a substrate. This is part of developing an adhesive magnetic tape.

I am currently using a BBC B with an Oscilloscope program from BEEBUG in 1987 but want to switch to my RISC OS machine and regain some space on my desk, as well as sample at a higher rate."


So I added a save function, it saves a text file of the sample number, the sample value, and the sample value of the stored waveform, separated by Tabs. Then each line of data is separated by a LF. See the help file. If you want to add to or remove any of these features then the procedure you need to attack is called "DoSave". This new version is on the Net at **www.doc.mmu.ac.uk/Acorn/RTR98.html**.

Martin tried it and wrote back: **"I cannot thank you enough. It seems to work perfectly. I save the data that is loaded with the *Scope* application, filetype is Text, and it loads like a dream into *Eureka* (and *Excel* for that matter). Thank you again for modifying your program. I did have a go myself, with zero results. Trouble is, I am happy enough messing about with BASIC programming for the BBC Micro but have not got to grips with the WIMP."**

Contacting AU

Mike Cook:
rambles@acornuser.com

Michael McConnell, hailing from a Linux laptop on a National Express bus is having a problem:


"I am looking for a power supply for an Acorn A4 laptop computer to power it off a 12V car battery supply. The decision to use Nickel-Cadmium batteries in it appears to be not the best decision I have seen, since the memory effect shows up badly. I have two batteries for it, and both just do not hold their charge. The machine would be used far more if only I could power it off my motor caravan's 12V system."


This is one you will have to be extremely careful about — as far as I can remember the laptop does use NiCd batteries with a nominal voltage of 12 volts so in theory you should be able to make a connection directly to the battery compartment, after removing the battery of course.

The problem is that often a lead acid battery has voltages approaching 15 volts when fully charged and that might be too much for the internal regulators, they could run too hot. The other problem is float-charging, that is charging and using at the same time.

Often battery chargers are not isolated from the mains but relay on potential dividers to reduce the voltage, this could lead to a safety issue. Remember always fully discharge your NiCd battery before recharging it to get maximum usage from it.

Richard Grant wants to make the most of what he has:


"I have been given an old but worthy A3000 to which I have added a second-hand hard disc thus making it into a rather slow but perfectly good second working machine to accompany my SA Risc PC.

"I'd like to use my multi-sync monitor with it instead of the original Acorn unit but there is the problem of matching a modern 15 pin video lead on the monitor to the 9 pin socket on the A3000. As the signals are virtually identical, can you please supply the pin matching from the 9-pin to the 15-pin so I can make up a suitable adapter?"


Okay, this is an easy one:

15 pin	Signal	9 pin
1	Red	1
2	Green	2
3	Blue	3
6	Red earth	6
7	Green earth	7
8	Blue earth	8
13	Hsync	4
14	Vsync	5

In addition LK 25 has to be removed to make pin 5 "Vsync" and not "Mode" and LK24 should be removed to make pin 4 "Hsync" and not "Csync". If the monitor requires inverted syncs remove LK26 to invert Hsync and LK27 to invert Vsync.

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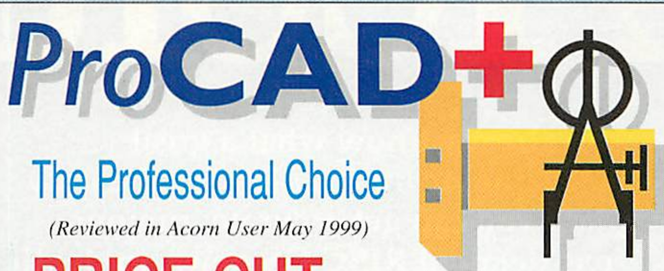
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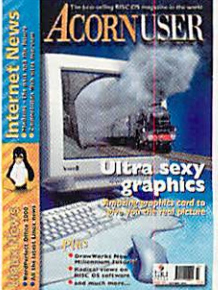
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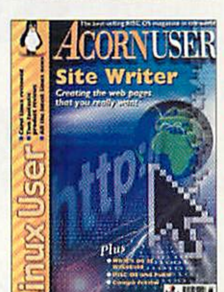
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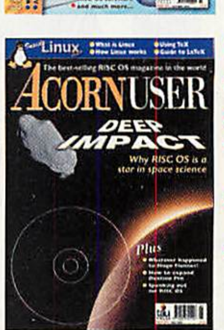
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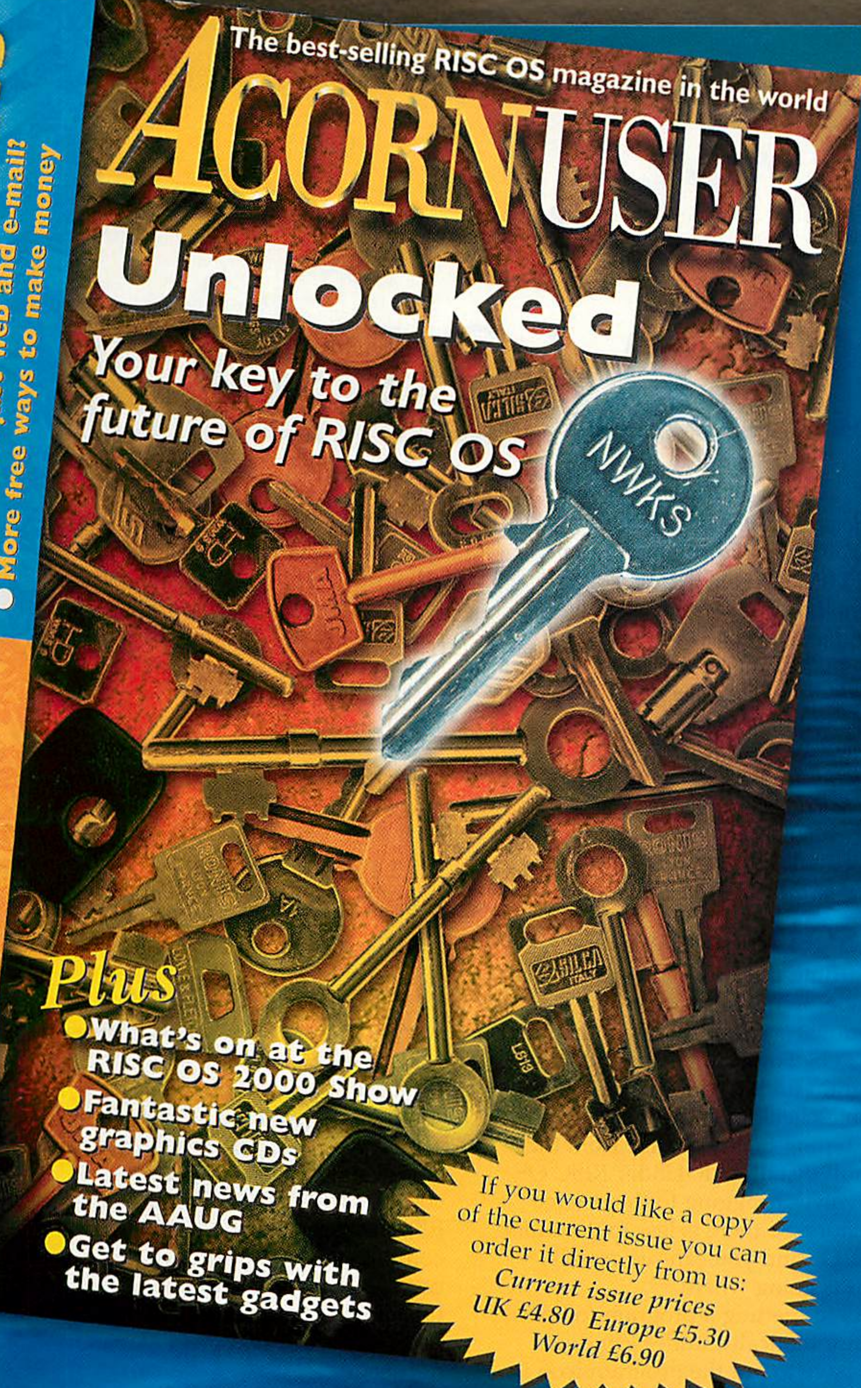


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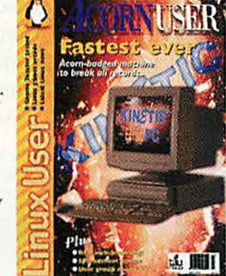






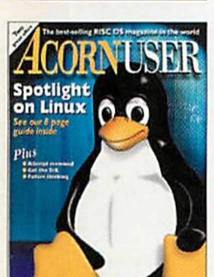
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Controversial

My editorial in the October issue sparked a certain amount of discussion, of which this is a small selection. The first letter wasn't actually part of it, but it is relevant.

Not easy at all

Frustration could almost get me to send my *Oregano* browser back. Surely I am not the only person who needs "simple" instructions to help me set it up. It took me nearly three days to get it up and running, having made quite a few calls to Castle for assistance.

Well after getting it going and downloading the registered program I have spent a further three days trying to get the e-mail to work — without success! Why can't this be explained using easily understandable language? And do I really need three further icons on the iconbar (*Newsbase*, *Messenger* and *POPstar*) to e-mail?

I thought the beauty of the Risc PC was the simple set ups and usability, or am I just stupid?

L.P.Baker
by e-mail from a Psion 5mx

You're not stupid. Setting up the Internet with PD software is one of the most difficult things you'll ever attempt and, as you usually only have to do it once, it's something people forget about. I think three days is about average for competent people who are inexperienced with the Internet.

However as far as the icons go, no you don't need them all, well certainly not POPstar. *E-mail and news fetching programs can be set up to auto-run when the Net connection is made and auto-quit when they've finished downloading. They don't have to be loaded continuously.*

Newsbase, *which handles the database, doesn't have a "no icon" option. The commercial version of* Messenger (Messenger Pro) *can use its own database handler in which case it will be the only icon on screen.*

RISC OS is easy!

Regarding the editorial in the October issue, I don't see how Windows is easier for beginners than RISC OS. For example, installing a program under Windows involves double-clicking on the install icon and typing in any change from the default install path. Under RISC OS it involves dragging to the desired directory. So there is less to do under RISC OS and you can see exactly what is going where.

As for getting a program to boot up automatically, under Windows you have to put the program icon in the Startup folder in the Start menu so how is this easier than doing the same with the RISC OS *Boot* file?

You make out that these things are hard in RISC OS. How much simpler can they be? Seriously, just how can it be improved?

What about uninstalling programs? Under Windows you're lucky if everything works OK and all of the program has gone afer you uninstall. If that's an option of course. None of this under RISC OS — you just select the icon and delete.

What about the complexity of the Windows system compared to RISC OS? It doesn't take long to figure out where programs go and about drag and drop. Dead easy.

If RISC OS really is too much to cope with, there's always the manual, the same as with Windows.

Michael Stubbs
by e-mail

Of course it's easy

Just saying that RISC OS is not easy to use and then giving the *TextEase* example shows the complete "no brainer" usage. If the school in question had done something as simple as laying out the disc contents logically (say normal root [!Boot,Apps,Printers] with the commonly used applications (in this case TextEase) then directories for the classes, the problem would not have happened and people would not moan.

At Salford Uni (not renowned for being pro-RISC OS) I took in five machines (A3000, A5000, two Riscstations and Risc PC) and gave them to five guinea pigs all with the same very vague instructions on starting an app and saving a file plus use of the hot keys F3, F4 and

Hit the self-destruct button

Lee Wade's article in the September issue of *Acorn User* made interesting reading and reveals the usual government self-destructive influence on UK industry, such as outsourcing public services (NHS, inland revenue, passport agency and so on) to big inefficient American companies at huge expense to the British taxpayers, and damage to the services concerned.

One intriguing point of detail could be raised, often overlooked by English writers — the UK does not have a single legal system, and the laws of Scotland are already subject to the European Convention of Human Rights. This has already raised some legal problems. Would the October 2000 deadline suggested therefore guarantee that the RIP bill could not be challenged?

V L MacKinlay
by e-mail

Even if the RIP bill becomes law there is still recourse to the courts to reduce or remove its provisions. While we don't have the automatic review of laws by the Justice system, as they do in the US for example, it does still exist — but somebody has to pay for the legal action.



views

Print).

Within 35 minutes people were creating full blown word processing and spreadsheet files. All the machines were set up the same.

RISC OS is easy to use — if it wasn't, it would not still be used in a large number of schools (it is encouraging to note the return of the education sector to RISC OS after adopting Windows and finding it hideous in both expense and time to operate).

While I would agree that Windows makes life simple with it's annoying help system (it's ridiculous to think that the help files of Office 2000 are larger than the apps they support), we do have our own interactive help system which does work. Alright, it's not as pre-emptive or gives out the same degree of help or suggestions (or mistakes), but that said, the apps under RISC OS are that simple (or simple when used with a manual — as in *PipeDream4*), the help system does not need to be that much.

Paul Johnson
by e-mail

Oh no it isn't...

It's dead simple to use RISC OS. Installing applications is a doddle. But I'm speaking with twelve years of experience.

On 'that other platform', installation is now a matter of inserting a CD-ROM, selecting a few options, and off it goes. It can fail, sure, but the same can be said for any installation — even dragging an application onto a disc with insufficient free space, or a corrupted disc.

As RISC OS is in a critical period, we — as experienced users and programmers — have a responsibility to make RISC OS as simple, intiutive, and 'nice' to use as it possibly can be.

Mr. Turnbull has identified several features that can be improved. So our options are to either sit back and debate the point endlessly (what newsgroups are for it seems), or figure out the best way to implement this and do so.

Richard Murray
by e-mail

A lively debate is certainly better than ignoring what is, to my mind, a problem. This sample of the letters (including the disagreeing ones) I've received have only reinforced my view.

Paul Johnson's experiment is interesting and valuable but here the machines were already set up and the guinea pigs were given instructions — plus they knew they were guinea pigs and hadn't been brought kicking and screaming to the desktop, and I guess (being in a university) reasonably bright. What he proves is that the system can be highly productive.

The "installation is easy you just drag" from Michael Stubbs (also iterated by others) omits fundamental assumptions: You have to know that you drag the application; this isn't the only way RISC OS apps are installed; and what do you do to ensure that documents created by that app will load when they are double-clicked (and actually have an icon instead of a blank square)? These things are not obvious.

File saving is another area which has been brought up — though I apologise for stealing this example from someone whose name I did not note. When saving a document for the first time, you have to open the directory first and then save the document to it.

Converting this back to the office (since the computer screen is supposed to be a desktop): Write your document, go to the filing cabinet and open the drawer, walk back to your desk, pick up the document and take it back to the drawer to file it.

Thankfully this absurdity is being dealt with by many programs now by having a persistent save box instead of a transient one. The Style Guide should be changed.

I just want to re-emphasise that I consider the RISC OS desktop to be the best I have used (and I use others for various tasks) and it is unquestionably the most productive when it's in use.

But that doesn't mean it can't be improved, and a rabid animosity to other platforms does not help in making informed and sensible decisions, we must be willing to look at what is good in other systems and then adapt them into a RISC OS implementation. Our aim is to make the platform widely accepted — but for that it must be acceptable and, right now, it isn't.

Steve Turnbull

Sad scene

With Web sites no longer updated, people that just seemed to have disappeared and a lack of new products the Acorn Internet scene looks pretty sad. So sad that a computer so obviously superior has met such an end. Many of the dealers now are having clear out specials and set dates which mark the end of Acorn support.

What a world. Acorns to me have always been great fun, stable and a joy to use. As ever I blame the management. We seemed to lack that killer instinct for marketing and advertising. Computing ain't getting any better. A choice between Microsoft's horrendous OS and the frankly boring to use but nice to look at iMacs is no choice at all.

Any chance of RISC OS being ported to the PC?

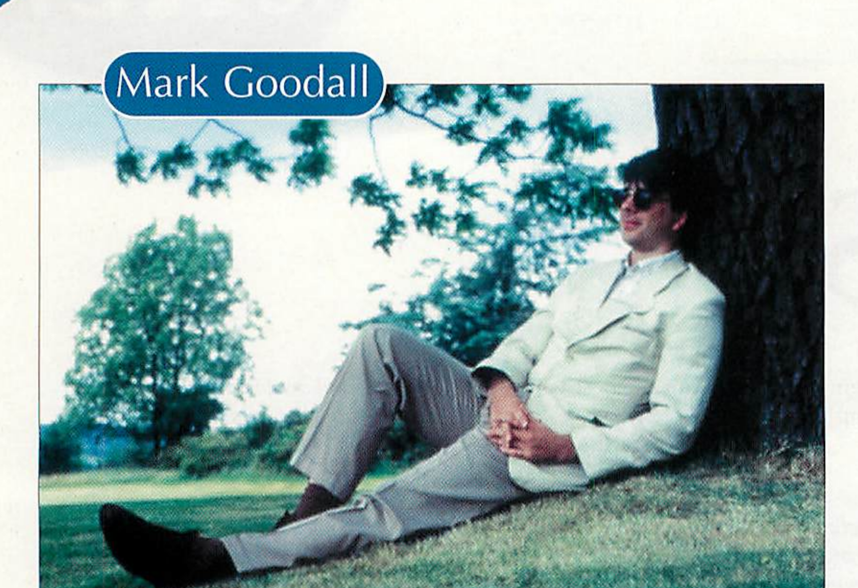
Tony Gaunt
by e-mail

I think your view of the market is a little extreme, there has been no significant decline in the market recently, we seem pretty much to have bottomed out — even Spacetech's problem was not caused by the market and it is now resurrected as Photodesk Ltd.

With R-Comp's release of the DialUp *software, which is a definite improvement, plus Oregano (even if one of our correspondent's has been having trouble with it). The fact is that RISC OS is extremely well served with excellent Internet software both PD and commercial.*

In fact things are looking up.

interview



Nostalgia, there's a lot of it about. Only last week I woke up to find David Braben talking about the joys of programming *Elite* on the BBC Micro on Radio 4's *What ever happened to the BBC Micro?* Looking back, I have always wanted to interview someone who was on the cutting edge of programming *Impression*.

Mark Goodall was the project manager on *Impression* for Computer Concepts (CC) which, though not developing, it is still ticking over enough to make it worth while.

> Today there is too much memory and hard disc space

Mark's place in programming history began when he answered an advertisement: 'I applied for a job from a weekly PC magazine. The advert read something along the lines of "would you like to work on a 32-bit processor?" It was phrased like that because Charles (Moir), as was everyone, not allowed publicly to mention ARM technology.

'The first day I started on the text editor. At one point I was the only programmer. I am the only programmer who worked on *Impression* from start to end. Towards the end I was doing less programming and more managing a team of six people. It was bloody hard work. I worked five weekends out of seven.

'I was programming in assembler and Oh! the ARM chip is the most gorgeous processor you could ever have. In 1990 there were five reasons why the Archimedes was the best, it had the fastest processor, the best multi-tasking operating system, scalable fonts, graphics resolution and cost.

'Everyone who had anything to do with the Archimedes were enthusiasts. Charles Moir had a big influence on me, he is a very clear thinker and very hard working. Charles lived and breathed computing. For me though the real heroes of the the time were Sophie Wilson and Neil Raine who did the font manager, the Windows and he wrote Defender.'

Mark was reading Physics at Southampton University when he got himself a BBC Micro. He used to stay up to all hours of the morning programming, writing things like a monitor program which enabled him to single-step machine code. Ironically some of the things he hacked were CC products.

'I did not know anything about computing until I got the BBC Micro and then I did the 30 hour Basic book which was fantastic. I taught myself assembler coding then I bought "6502 Assembler Programming" and improved the algorithms in that'.

Mark then went to work for a games company coding games in Z80 assembler and for the Commodore 64 but all the time he was pining for the BBC Micro. Mark believes that most good programmers want to be film directors. For him programming is creative, it expands your imagination and it gives form to your imagination.

'The problem with programming today is that there is far too much memory and hard disc space. So people are complacent. Bloated software should be banished. I remember trying to fit *Impression* into 512K. We made sure that all time spent was rendering things to the screen either calling the font manager or the draw module. The hugest priority was to produce a minimal, productive, intuitive user interface.'

Mark's favourite bits of the program are the user interface for editing graphics frames – embedded frames caused him 'one hell of time', this and masterpages too, all of which he designed.

'I didn't get involved in the multi-tasking operating system, Zebedee. At one point CC were writing their own operating system, because the original (Arthur) was not good enough. From the start I thought Zebedee had no future and it turned out it didn't. Though I believe it inspired Acorn to get their act together and do RISC OS.

'I remember the first time CC showed *Impression*, it was in its beta form and Acorn was showing *Acorn DTP*. CC put out a leaflet and all it did was compare the two packages. It went down in the Acorn annals as the "black leaflet", Acorn nearly sued. It was the worst relations CC ever had with Acorn and we did not speak for about year.

These days Mark can be found as the Project Manager for Xara. He has an Acorn machine in his house. His hobby is collecting speeding tickets in his fast car. Though Mark has a new philosophy on life.

'I believe that life is divided into two parts: Before putting up a curtain pole and after. Marriage and children have nothing on putting up a curtain pole'.

Some day Mark intends to sail around the world, I am sure the old salty would have even more tales to tell then.

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TopModel 2	152.75
2-4 machines	305.00
5 to 10 machines	458.00
DataPower 2	175.08
up to 10 machines	407.73



all our machines come with RISC OS 4 as standard!!

RISC OS fitting requires your machine to be situated at our premises (not including on-site fitting). This can be arranged by courier for £30.

On-site fitting requires your site to be situated not more than 50 miles from Nottingham city centre. For sites further away, please ring.

RISC OS 4

Upgrade (ROMS+CD)	116.33
Fitting (+Data Transfer)	35.25

On Site fitting

5-10 machines, ea.	52.88
up to 20 machines, ea.	44.06
20+ machines, ea.	35.25

special deals

R04, 48xCD, 10.2Gb	235.00
R04, 48xCD, 15Gb	247.00
R04, 48xCD, 20Gb	259.00
R04, 48xCD, 27Gb	276.00

Prices exclude carriage but include VAT

Carriage	
Items up to 2kg	£ 6
Items up to 25kg	£ 9
Items over 25kg	£20
Computers	£20

Please send cheques with orders, payable to The Levens Organisation Ltd.

The Levens Organisation Limited, Kable House, Amber Drive, Langley Mill, Nottingham, NG16 4BE